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Educational News and Editorial Comment

SCHOOL REPORTS

Alfred D. Simpson, director of research and surveys for the State Board of Education of Connecticut, has prepared a pamphlet of twenty-eight pages which the board has published under the title, *Local School Reports*. This pamphlet makes an analysis of the contents of typical school reports, offers a number of definite suggestions for the improvement of such reports, and presents a bibliography of articles and books dealing with the preparation of reports. The bibliography also includes the titles of eleven school reports which may be regarded as examples to be followed.

This is one of the most concrete and useful studies in school administration which has appeared in recent years. It brings out clearly a number of the principles which superintendents should have in mind in preparing their reports.

Particularly timely is the discussion of the statistical sections of school reports. On this matter Mr. Simpson makes the following remarks.

It is a significant fact, as will be apparent to anyone who cares to examine these reports, that, of the large amount of space devoted to statistics, a very small proportion is utilized for statistical presentation in connection with analy-

ses of school problems and needs or for critical evaluations of past progress. Most of the statistical material appears in the form of isolated tables. An overwhelming proportion has to do with finances.

It is not the purpose of this bulletin to attempt a criticism of present reports. In fact, the practice of educational administration has failed as yet to develop such generally recognized standards in this field as are to be found, for example, in the field of school buildings or even in the classification and promotion of pupils. Nevertheless, when such large proportions of school reports are devoted to statistics, should not the administrator ask himself such questions as the following? (1) Am I using an excessive amount of space for statistics? (2) What purpose with the public is served by this statistical material? (3) Am I using statistics to unfold, clarify, and evaluate educational progress and accomplishment? (4) Is the statistical material so presented as to express the need of progress and attention in a particular direction? (5) Is the present use of statistical material designed for the solution of imminent problems? (6) Is my statistical presentation likely to convince those who read?

To be sure, some statistics are for a matter of record. Their publication serves their preservation and accessibility for later use. In a local school system, however, where the use will be mainly by the administrative staff, the publication of long statistical tables is at least open to question. At any rate, it would seem to be worth while to consider the practice of Denver, Colorado, and certain other cities in the publication of complete statistical material for record purposes in a volume separate from that report which is designed by the superintendent to serve the specific purpose of educational publicity.

CITY SCHOOL EXAMINERS

The examiners of the school systems of both New York and Chicago have recently been subjects of vigorous political attack. The Board of Examiners of New York City was attacked by the president of the board of education, who charged that the examiners "were guilty of irregularities," and that, "undoubtedly, guile was used by them in securing favorable action on certain cases." In Chicago the attack took a different form. The examiner, who had refused to put on the eligible list the name of a relative of an influential citizen, was found to be "ungracious and difficult to deal with." To be sure, he had made explanation after explanation to the offended influential citizen as to the reasons for his action. In spite of the fact that the superintendent regarded the examiner as competent and nominated him for reappointment, the board of education refused to appoint him for another term.

Fortunately, the New York examiners had the right of appeal to

the state commissioner of education, who, under the law, is the court of last judgment in such matters. The decision of the commissioner was that the evidence in no wise supported the charges made by the president of the board of education.

The *New York Times*, commenting editorially on the matter, makes a number of statements with which there will be hearty agreement in the case of all who are interested in protecting the schools from political influences of an unsavory type. Some paragraphs from the editorial are as follows:

> The decisions of the state commissioner of education, Frank P. Graves, with respect to the board of examiners bring to public attention the importance of maintaining the independence of that body. Upon its integrity the whole merit system rests. It must be free from the influence of partisan politics, from that of educational politics, and also, so far as it is humanly possible, from that of personal prejudices.
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> In the decision there is a very definite and wholesome declaration concerning the power of the board of examiners to conduct examinations in a manner that seems to them most effective in determining merit. It is the opinion of the commissioner, to which it is within his authority to give effect, that neither the board of education nor the superintendent of schools may direct the board of examiners to "eliminate or reduce materially the extent of the written examination" required of those seeking graduation from a teachers' training school or the "No. 1" license. Moreover, rules relative to the conduct of the examination need not be submitted to the superintendent of schools for his approval prior to their adoption. It is stated that there are methods and practices on the part of the board of examiners which "should be remedied," but it is to be inferred that they are to be remedied from within and not from without.
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> The whole effect of these two decisions is to emphasize the importance of maintaining the independence of this board, for the integrity of the whole examination system depends upon it. It is remembered that special attention was given two or three years ago to the examination of candidates for the board of examiners, and it is understood that another such examination is imminent. It is of the utmost importance that the personnel of the board should be of the highest character.

The Chicago situation was cleared up much less satisfactorily. The board of education adopted a rule retiring with pensions all persons in the school system who were seventy years of age or older. This rule affected the examiner about whom the board of education and the superintendent were in disagreement. It is unfortunate that it could not have been decided once for all whether the superin-

tendent or the board of education is to be in charge of the eligible list. The New York decision is a better solution of an important public matter.

ACTIVITIES OF THE AUDITORIUM

What to do with the auditorium period has been a serious problem for principals and teachers in charge of platoon schools. Sometimes the auditorium period has been regarded as a time for entertainment. Sometimes an effort has been made to provide various forms of instruction which supplement the regular class work. Sometimes effort has been directed toward the cultivation of a community spirit through chorus singing or through platform exercises prepared by various groups of pupils. The fact which has been most evident in all this experimentation is that the auditorium period is an unmastered unit forced on the teachers by administrative necessity but not yet actually a part of the school program.

Suggestions as to suitable exercises for the auditorium period will be welcomed by all administrative officers who have encountered the problem. Such suggestions are supplied by the school system of Kansas City, Missouri, in a volume of 128 pages entitled, *Activities of the Auditorium*, which was prepared by a number of committees of teachers under the chairmanship of G. W. Diemer, director of the Teachers College of Kansas City. One section presents auditorium programs for the successive months of the school year.

A few paragraphs from Part I of this volume describe the way in which the Kansas City platoon schools have gone about securing the materials for their auditorium exercises.

> The pupils should be encouraged to be on the alert for potential material from other studies and report the possible use to the auditorium teacher and class.
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> The principal may aid the auditorium by reporting material which he has seen being worked out in his visits to the various departments.
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> The auditorium teacher should visit the home and special rooms, and the home and special teachers should visit the auditorium. However, time does not permit frequent enough visits to keep in touch with all sections; nor can the program of the school be arranged so as to make the visits come at the time desired.
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> The auditorium teachers should have frequent conferences with special and home-room teachers, but it is found that, if these are too frequent, they become burdensome and do not always yield the best results.

Perhaps the best method found so far is a regular plan of reports between the auditorium and other departments.

It is necessary for the teachers of all departments always to keep in mind the seasonal outline and to plan ahead for special days and occasions. Each week, preferably early in the week, plans should be made for the succeeding week. After a consultation between the auditorium teachers as to the general program for the next week, each auditorium teacher should plan for her individual classes. These plans are made in outline form and may be headed "Outline for Citizenship Classes." The program for each day in the week is scheduled. On the same sheet may be found "Suggestions to Home-Room and Special Teachers." Under this are suggestions as to how work which will help the auditorium can be planned in home and special rooms and as to what type of work will probably be carried on in the auditorium. There should also be indicated in these outlines the use of the material which was furnished the preceding week.

After the principal has approved these plans, they should be mimeographed and each teacher furnished with a copy not later than Wednesday; the return report should be filed with the principal not later than Friday.

Some of the advantages which have come from this plan are as follows: (1) It keeps each teacher in touch with what is being done in other departments. (2) It gives to the principal and the auditorium teachers a broad view of the work of the school as a whole. Having this knowledge, the auditorium teachers can make more definite plans. (3) It is a time-saver in that the home-room and special teachers can fill in their blanks when planning their own work at the most convenient time. It gives an opportunity for the auditorium teachers to study these reports at a time opportune to them. The reports can be kept on file and referred to when necessary. (4) It makes necessary fewer general conferences, since work can be arranged with individuals and small groups. (5) It gives the auditorium a better opportunity to help other departments. As a general thing, these outlines should be followed; however, they should be flexible enough to allow for rearrangement when that seems desirable.

It is not possible for the auditorium to use immediately all the material suggested, but there usually comes a time when it is used.

NATURAL HISTORY FOR PUPILS

The Cleveland Museum of Natural History has published a series of pocket pamphlets dealing with the trees of Ohio and with various phases of Indian life. The pamphlets are illustrated with sketches and with photographs of anthropological materials in the museum. They are inclosed in thick envelopes so that a boy scout or other devotee of the out-of-doors can carry them in his pocket with the least possible difficulty.

Two of the pamphlets are relatively local in their content, dealing with the trees and the mound builders of Ohio. The third, which has the title, *Indian Homes*, is much more general and is one of the most attractive short studies of human shelters that has ever been prepared. It is introduced by a series of maps of North America showing the geographical distribution of different kinds of Indian shelters. Then follow alternate pages of descriptive text and illustrations. The last few pages are devoted to a bibliography, which furnishes the interested reader with numerous references to supplementary material.

The pamphlets were prepared by Harold L. Madison, curator of education, and can be purchased for 15 cents each by addressing the Cleveland Museum of Natural History, Cleveland, Ohio.

An interesting publication useful as supplementary reading for a course in nature study is a pamphlet published by the American Tree Association, 1214 Sixteenth Street, N.W., Washington, D.C., under the title, *The Forestry Primer*. This is published to mark the semicentennial of the first step in forestry taken by the United States government. It describes the distribution of American forests, the danger of depredation of this natural resource of the continent, and the measures which are necessary if the forests are to be preserved.

AUDUBON BIRD PICTURES

An opportunity to acquire colored pictures and descriptive leaflets dealing with the habits and activities of birds is offered to teachers and pupils by the National Association of Audubon Societies. Through the generosity of some of its members, the association is able to supply this material at one-half the actual cost of publication and distribution.

The plan is very simple. The teacher organizes a Junior Audubon Club, requiring each child to pay ten cents. In return for this fee each child receives six colored pictures of common American birds, made by one of the leading artists of America, and six leaflets telling how birds make their nests, what they eat, where they go in winter, what are their enemies, and other facts of interest. With each leaflet is supplied an outline drawing, on which the colors of the birds may be copied from the plates. Each child also receives an Audubon but-

ton in colors. New pictures, literature, and buttons are supplied each year to those who desire to continue the arrangement.

The teacher who forms a club of twenty-five or more pupils receives free for one year the magazine, *Bird-Lore*, which is the leading popular journal of the world on birds. In small schools it is sometimes not possible to enrol twenty-five pupils. In such cases material is furnished the children if as many as ten are interested, but the magazine is sent only when the minimum number in the club is twenty-five.

This undertaking costs the National Association of Audubon Societies twenty cents for each child enrolled. The plan has become very popular in many of the schools throughout the United States and Canada; about three hundred thousand children were enrolled during the past year.

Communications should be addressed to the National Association of Audubon Societies, 1974 Broadway, New York City.

CLASS SIZE IN THE ELEMENTARY SCHOOL

A monograph published by the Bureau of Educational Research of the Ohio State University under the title, *Class-Size in the Elementary School*, presents the results of classroom tests given by Professor P. R. Stevenson to a number of classes of various sizes for the purpose of determining whether the efficiency of instruction is seriously affected by large numbers of pupils.

The paragraphs in which Professor Stevenson states the general results of his investigation are as follows:

> From a study of the data for Grades II, V, and VII, it is evident that the second-grade pupils received more efficient instruction when taught in groups of less than forty-five than they did when the size of the classes was increased beyond this point. The reverse was true for Grades V and VII, since increasing the size of the groups to forty-five in the seventh grade and to forty-eight in the fifth grade increased the advantage of the large groups over the small ones.
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> The law of diminishing returns therefore began to operate in the case of the second grade sometime before the size of the class reached forty-five. No similar statement can be made with reference to Grades V and VII, since the gains actually increased as the size of the classes increased up to forty-five for the seventh grade and up to forty-eight for the fifth grade.

Earlier in the monograph the author writes as follows:

> Data are given in Table VI to show the effect on instruction of classes ranging in enrolment from 20 to 29, 30 to 39, and 40 to 49. In presenting the

data in this manner, some of the important factors are not under strict control. The ability of pupils in large and small classes is controlled, but the factor of teaching ability is neglected. The figures, however, are interesting and conform closely to those previously given where conditions are more carefully controlled. Since the results are not at variance with those already shown, it is possible that the equating of teacher ability is of far less importance than the equalizing of pupil ability.

For the second grade, it will be noted that the classes between 30 and 40 made the least progress. Classes between 20 and 30 were next, and the greatest progress was made by the largest group. In the other two grades, the figures indicate that the pupils did better work as the size of the classes increased. For example, in Grade V the smallest group gained 29.5, the middle group 39.0, and the largest group 45.6 points.

It is evident from this investigation and others of like type that the success of instruction depends on factors other than class size. It therefore behooves school administrators to make an effort to realize the possibilities of financial economy by increasing the size of classes and then giving more attention to improvements in teaching methods and in materials used in teaching. There must be a limit to the extent to which classes can be increased in size, but apparently that limit has not been commonly reached.

THE ST. LOUIS "PUBLIC SCHOOL MESSENGER"

Another magazine has been added to the list of city school publications through the enlargement of the *Public School Messenger* of St. Louis. A publication bearing this title has served for more than twenty years as a medium of communication between the administrative officers and the teachers of the St. Louis school system. Until recently it has been a mere leaflet. From now on, it is to be a medium for the publication of discussions and reports of studies. The January issue contains articles on school buildings, the methods by which appointments are made to the teaching staff, the grading of teachers, the I.Q.'s of first-grade pupils, and a number of similar topics.

Experience in other cities has shown that the professional spirit of teachers is developed by opportunities for the publication and study of the results of local investigations. As contrasted with the other great school systems, St. Louis has been slow in arriving at the point of supporting an educational journal. The issues of the

enlarged publication which have appeared thus far are full of valuable articles, and readers outside the St. Louis school system as well as the local teachers will be stimulated by its contributions to the science and practice of education.

A MONOGRAPH ON THE TEACHING OF READING

The State Board of Education of Connecticut has recently published for the guidance of teachers in that state a pamphlet of 116 pages entitled, *A Monograph on the Teaching of Reading*. The monograph contains specific directions with regard to the work which should be undertaken in each grade. It contains also an excellent summary of the best scientific material on reading which has been collected in recent years.

It is not possible to reproduce here any large part of this monograph. One section may be quoted both because it is typical and because it gives a sound answer to the question, When should silent reading be stressed in the elementary school? Wisdom on this matter is much needed in view of the overenthusiasm of many recent statements which seem to imply that there is no place for oral reading in a modern progressive school.

As indicated, some time during the third and fourth grades ability in word recognition begins to surpass ability in articulation. Since we assume that such word recognition implies a mastery of the meanings as well as the phonograms, this means, of course, that the individual has arrived at a stage in his reading development where he is able to get thought from the printed page more rapidly than he can express it orally. Obviously, if his ability to get meanings from the printed page is to be further developed, it must be largely through silent reading. This alone represents the elasticity demanded by a reading rate constantly increasing with the growing assimilative powers of the individual. Silent reading should, therefore, in the very nature of the case occupy an important place in the elementary-school program, above the primary grades.

This does not mean, of course, that there is to be no silent-reading instruction in the primary grades. The investigation of reading ability through a study of eye-movements has shown that pupils as far down as the second and third grades generally require fewer pauses and shorter pauses when reading silently than when reading orally. With few exceptions, the other investigations—those comparing the achievements of oral and silent reading directly—have shown that the pupils of these grades tend to read more rapidly silently than orally. Furthermore, the evidence of a number of investigators shows quite clearly that individuals have a tendency to approximate their maximum ability

for *careful* silent reading at an early age, at least as early as the fifth and sixth grades and probably in many cases much earlier.

This leads us to the conclusion, then, that training in silent reading should begin early. It may well receive considerable attention in the primary grades—and this in spite of the fact that these grades represent the optimal period for instruction in oral reading. The two may be cultivated side by side. During the succeeding grades—the fourth, fifth, and sixth—the emphasis should be placed upon training for rapid and effective silent reading, oral reading being utilized to some extent to afford training in oral expression. At the close of the elementary-school period the pupil should be a relatively accomplished reader. During the junior high school period—Grades VII, VIII, and IX—reading instruction will naturally become a part of the work in English. The pupil then will have ample opportunity for practice in rapid silent reading.

THE JANITOR AND THE SCHOOL CHILD

As a part of its general campaign for the improvement of public health, the Metropolitan Life Insurance Company, New York City, has published an attractive and instructive pamphlet of twelve pages addressed to school janitors. The title of the pamphlet is *The Janitor and the School Child*. It contains paragraphs on such topics as the following: "Why People Catch Cold," "Dust and Disease," "Stale Air," and "Overheating." The author of the pamphlet is C.-E. A. Winslow, professor of public health, Yale School of Medicine, and chairman of the New York State Commission on Ventilation.

The first two paragraphs of the pamphlet are as follows:

Your position as an official of our public-school system is most important. It gives you a definite responsibility to your community. You are charged with the care of the school building and its equipment, and the service you render in that connection is valuable and important. More than that, you have in your hands, to a very large extent, the health and well-being of our children.

Perhaps you have noticed that in the autumn these children come back to school with rosy cheeks and high spirits. Then, as winter goes on, they grow pale, nervous, and tired; and in the more severe weather many of them snuffle and sneeze and carry on their work with difficulty or become too ill to attend their classes. Much of their discomfort and illness can be prevented by you—you can do a great deal to keep the doctor away.

PROVIDING SUPERVISION FOR RURAL SCHOOLS

The *Christian Science Monitor* reports a practice which has been inaugurated in New Zealand and which seems to be a very happy solution of one of the problems of rural-school organization.

An interesting scheme of *adoption* of country schools where there is only one teacher was recently introduced in the Auckland district by the senior inspector, C. W. Garrard, and at the last meeting of the Auckland education board he reported that the experiment had been a great success. Thirty-seven large city and country schools were each requested to adopt one or two "sole-charge" schools.

In every case the staff of the larger school took up the work enthusiastically, and Mr. Garrard has a sheaf of letters from both sides testifying to the value of the "fathering." Teachers in the larger schools gave advice on all matters of school organization and methods of teaching. They forwarded specimens of their own pupils' work and judged samples of the work of the adopted school. Teachers in the smaller schools were encouraged to visit the larger ones and inspect their methods. The interest extended to the pupils, children in the same grade exchanging letters.

In the response to this suggestion for co-operation and self-improvement, there is gratifying evidence of the enthusiasm and unselfishness of the New Zealand teachers. "I have not forgotten my own experience in country schools and am delighted to help," said one headmaster. "You may count on myself and my staff doing our utmost to afford assistance to our less fortunately placed colleagues," wrote another. The teachers helped are full of gratitude. "Half the pupils in my school have never been more than a few miles from home," wrote a country teacher, "and have never seen a railway train, a shop, or the sea. The scheme has opened a new life to them." "I should be very sorry not to be adopted next year," said another. "At the period when one is inclined to be satisfied with results, specimens of good work from another school have a wonderful effect in dispelling any complacency and self-satisfaction one may have." Many of the adopted teachers arranged to have their holidays at a time different from that fixed and spent some of their vacation at their parent schools. Improvement in the work of the adopted schools has been noted by inspectors. Mr. Garrard thinks that the scheme may be extended so that every efficient school, in town or country, may become a center from which advice and assistance will radiate to the relatively inefficient schools.

THE EDUCATIONAL AWAKENING

The discussions which are being carried on in England with regard to desirable changes in the educational system are interesting as revelations of the fact that the problems of human society in England are very much like those in this country. The London *Times Educational Supplement* has published an editorial which sounds so much like an article written about American conditions that it makes stimulating reading. It is as follows:

The discussion at Bath by the Association of British Chambers of Commerce on the curriculum in elementary schools raised a matter of the first im-

portance. The London Chamber of Commerce, which originated the discussion, revived the question of what may be called the "black-coat" curriculum. Is the school laying stress on the production of clerks? Is the curriculum too scrappy? Does it aim at the acquisition of a knowledge of facts rather than at the training of character and intellect? Does it cater to local trades and industries? Does it justify its costliness? The real issue is whether the schools are giving an outfit for life, that is to say, whether they are so training the immature mind and personality that each pupil will be fit either to take more advanced scholastic or technical training or to go out to work and take further training in continuation schools.

It is certainly a vital issue for perhaps the greatest mercantile nation in the world. In the past our mercantile reputation abroad, perhaps especially in the great markets of South America, has been based on the character of the English trader. He has long been trusted because of his nationality. Our education system must take that fact into account. Character is a first-rate mercantile asset. This may seem a somewhat callous way of looking at the moral factor in education, but it is not so. The training of character is part of the outfit for life, part of an outfit which very largely affects intercourse of all kinds with other men of many nations. A scrappy curriculum militates against character; a thorough curriculum makes for character and also trains the intellect to think slowly, soundly, and well.

How can an elementary system do this? The old truncated system plainly could achieve no such results. Under the old system teachers were trained to give an "education" which ended at the age of twelve. Under modern conditions it is possible for all children to have a preparatory education, ending at the age of about eleven years, when the use of the "tools" of education can be fully learned, and this can be followed by a four-year junior secondary course, attended by all children, in which a few subjects are so thoroughly studied as to make clear at the age of fourteen years and a little over which children are specially qualified for advanced secondary instruction, which children should be put to technical work, and which children should leave school for industrial work supplemented by continuation education. All this can be done in the present elementary schools; in fact, it is being done in certain areas. The weak places are the rural districts, which everywhere need the creation of central schools for children over the age of eleven and the provision of facilities for instruction in the science of agriculture. The cost of education is no doubt great, but we must always take into account its value in character, in thinking power, and in technical capacity. That England and Wales at present are not securing full value for expenditure may be true, but that is because of the difficulties of school organization, which are being faced by education directors today in all parts of the country.

A DECISION OF THE SUPREME COURT OF MICHIGAN[1]

There are two school districts in the city of Saginaw: one on the east side of the river, the other on the west side of the river.

The plaintiff is the Union School District comprising the territory on the west side of the river, and was organized in 1865 under Act No. 260 of the laws of the state of Michigan of that year. This act was rewritten in 1897 and adopted by the legislature as Local Act No. 468.

Section 10 of which act reads:

Said board shall also have power, and it shall be its duty annually, to determine by vote, which shall be entered in the records of its proceedings, the amount of money necessary to be raised by tax on the property of said district to defray the expenses of the schools of said district for the current year, including free textbooks and school supplies, for all grades, including the high school, and the amount necessary to pay the interest and principal of any liquidated debt due within such year, from such district, and to file with the Board of Estimates, or other proper official, designated in the charter of said city of Saginaw, on or before the first day of May in each year, a statement in writing of the sums so voted; and it shall be the duty of the common council to apportion said sums to be raised among the wards of said city, which are included in said district, according to the valuation of the taxable property in the same, and to cause the same to be assessed on such property in the first general tax thereafter made, which said sums so assessed shall be and remain a lien on the property against which they are assessed until fully paid. . . . .

Section 1 of plaintiff's charter provides that said district shall have all the powers and privileges conferred upon school districts by the general laws of this state.

Section 5676, C.L. 1915, as amended by Act No. 315, Public Acts of 1921, reads:

The district board shall have authority to vote such taxes as may be necessary for the regular running expenses of the school, which shall include school furnishings and all appurtenances, the care of school property, for such alteration as shall be necessary to place the schoolhouse in a safe and sanitary condition, teachers' wages, water supply, premium upon indemnity bond for the

[1] The case is listed as "*The Union School District of the City of Saginaw, a Body Corporate, Plaintiff and Appellant* v. *The Council of the City of Saginaw, Defendant and Appellee.*"—EDITOR.

treasurer of the district, transportation of the pupils, record books and blanks, and all apparatus and material which may be necessary in order that the schools may be properly managed and maintained, and for the deficiencies in such funds for the preceding year, if any. . . . .

Section 5680, C.L. 1915:

The district board shall hire and contract. . . . .

Section 15 reads:

Said board shall also have full power and authority . . . . relative to the appointment of necessary officers and servants in and about said schools, their powers, duties, and compensation, including a superintendent of the schools of said district; and said board shall be authorized to purchase, exchange, repair, and improve the school apparatus, books, furniture, textbooks, and all other school supplies used in the public schools, including high schools. . . . .

In the spring of 1924 the plaintiff adopted its estimate for the ensuing year and filed the same with the Board of Estimates of the city of Saginaw. The Board of Estimates reduced the amount of money determined by the school board to be necessary to be raised over twenty thousand dollars. Thereupon the plaintiff requested the council of the city of Saginaw to assess the full amount of money asked by the plaintiff. The city refused to assess the full amount but did assess the amount as reduced by the Board of Estimates. The plaintiff petitioned the circuit court for the county of Saginaw for a writ of mandamus to compel the city council to assess the full amount. The circuit court denied the prayer for the writ of mandamus. By a writ of certiorari the supreme court is called upon to review the action of the circuit judges.

The charter of the city of Saginaw creates a Board of Estimates composed of five members appointed by the city council, no more than three of whom shall reside in any one taxing district.

The defendant justifies its action by calling attention to the provisions of its charter as follows:

Section 324. The Council, after revising, altering, and approving the estimate submitted to it by the several commissioners of the several departments as provided by Section 327, shall on or before the first Monday in May transmit the same through the controller together with an estimate of any other taxes approved by it to be raised for the ensuing year, for the approval of the Board of Estimates as provided in this charter, and all propositions and resolutions for the borrowing of any money on the credit of the city, or issuing any bonds shall also in like manner be submitted to the Board of Estimates, except as herein other-

wise provided. It shall be the duty of the Council on or before the third Monday in May of each year to determine by resolution the amount necessary to be raised by tax for the city purposes within said city for such year, which amount shall not for any purpose, except as in this charter otherwise provided, exceed the amount theretofore approved by the Board of Estimates, which in turn shall not exceed the rate per cent as mentioned in the preceding section; and the Council shall also at the same time determine and enter upon a record of its proceedings the proportion on a percentage basis which each of the city funds, except school funds, shall bear to the total of such tax for all city purposes, except school purposes, and, when any such city tax is collected as provided in this charter, the same shall be apportioned to the several funds in accordance with such determination as herein above provided, and it shall be the duty of the city clerk to certify the amount to be raised to the assessor, who shall assess the sum so certified and such other taxes as may be required by law upon the taxable property of said city.

Section 328. Before any money shall be raised, or taxes levied and collected, for the purpose of the several funds mentioned in this charter, or for school purposes in said city, the estimates of the Council, the Board of Education, and the Union School District, of the amount of moneys required for such fund or purposes, shall be submitted to said Board of Estimates for approval, and before any bonds or other evidences of indebtedness shall be issued by the city, said issue shall be approved by said Board of Estimates, unless they have been authorized by vote of the people, as provided in this charter, the constitution, or general laws of the state. The estimates for the general city taxes shall be acted upon by the Council, as provided by this charter, and shall be submitted to the Board of Estimates on the first Monday in May, at which time the Board of Education and Union School District shall each submit to said Board its estimates for school purposes, to be considered by the Board and reported by it to the Council on or before the third Monday in May. The said board shall carefully consider all estimates required by this charter to be submitted to it, of moneys to be raised as aforesaid, and shall approve or disapprove of the same. It may decrease the amount to be raised but shall not increase the same. The said Board shall have the power and it shall be its duty, after careful consideration of the various estimates referred to, if it shall deem it advisable so to do, to disallow any item, items, or parts of items in the different funds as well as the gross amount thereof, as said Board may deem advisable. It shall be unlawful for the Council of said city to create any indebtedness or expend any moneys as to items specifically disallowed and disapproved by said Board of Estimates.

It is the claim of the plaintiff that the charter provisions should be construed in the light of the provisions conferring upon the Board of Education its powers and duties and that when so construed the Board of Estimates may not eliminate items germane to the system of schools as described in the charter of the plaintiff.

It is also its claim that if the legislature intended to go farther than that, its act is unconstitutional as the title of the act gave no hint of its purpose. Other claims also are made which we think it unnecessary to state here.

We have four excellent briefs in which the attorneys cite a great many authorities. Some of the cases which deal with the principles involved here are: *Attorney General* v. *Thompson*, 168 Mich. 525; *Cote* v. *Village of Highland Park*, 173 Mich. 201; *Board of Education* v. *Straub*, 182 Mich. at p. 671; *McQueen* v. *Port Huron City Comm'r*, 194 Mich. at p. 335; *Attorney General* v. *Detroit Board of Education*, 225 Mich. 237.

A companion case in nearly all respects is the recent case of *Board of Education of Saginaw, East Side* v. *Board of Estimates of City of Saginaw*, 230 Mich. 495. The attorney for the defendant seeks to distinguish that case from the instant case; we quote from his brief:

> Defendant desires to impress upon this court that the present matter is not in any material point a repetition of the somewhat similar issues decided by this court in the *Board of Education of the City of Saginaw, East Side*, v. *Board of Estimates and the Council of the City of Saginaw.*
>
> In the case at bar the defendant is the council alone. The Board of Estimates is not made a party. In addition, there is the very material difference in the laws under which the two school boards are working. The Board of Education of the City of Saginaw, East Side, Michigan, is incorporated under Act 166, P.A. 1917, a general law. The plaintiff in the case at bar is incorporated under Act 468, L.A. 1897, and in order for this court to get a clear understanding of the issues here it is necessary, we believe, to have the facts completely in mind. Dates alone play an important part in a clear conception of those facts.
>
> In the East Side case this court determined that the words "shall be approved" in the general act left no discretion with the Board of Estimates as to whether it would approve or disapprove the school budget submitted where the amount asked was for lawful purposes within the powers of the school board and within the legal limit. It is not necessary for this court to pass upon that question in the case at bar as the words "shall be approved" are not before the court for interpretation. In this case it will be necessary to pass upon constitutional questions only.

We think the opinion went much farther than simply to construe the words "shall be approved." The Board of Estimates in that case insisted that because of the provisions in the charter of the city of Saginaw it might reduce any item proposed by the Board of Education. In that case as in this one the Board of Estimates reduced

wages and school items that in the opinion of the Board of Education were necessary to the proper functioning of the schools. Some of the language of that case is germane here. We quote:

> If defendant is right, then the legislature must have intended in effect to take from the school board and to give to the Board of Estimates the power to determine, from which no right of review or appeal is given, the length of the school year under the statute, the number and compensation of teachers, the fiscal plans and policies, and the character and quantity of materials, supplies, and equipment for the district, for if the Board of Estimates has power to say upon the estimate how much and for what purpose money may be raised, it is by its absolute power of veto virtually the master of the affairs of the plaintiff district.
>
> This was not intended. If it were, we might expect to find a clear legislative expression to that effect. The statute makes no provision for supplying the Board of Estimates with facts, data, statistics, reports, etc., so that an intelligent judgment on the matter might be passed; nor does it require the school board to exhibit its affairs, its needs, its problems to the Board of Estimates.

If the Board of Estimates may cut the salary of the superintendent of schools $500, as it did in the instant case, it may cut it in halves and prevent the hiring of a competent man because of the inadequacy of the salary. This also applies to the other items which were reduced.

But counsel says and we again quote from the brief:

> Another objection raised by defendant that the plaintiff takes particular care to ignore is the point that unless there is some checking body over plaintiff's budget, such as the Board of Estimates, then plaintiff has the right to spend an unlimited amount of money and put into the tax roll an unlimited sum for education. It could, if it desired, raise sufficient sums of money so that every child would have a separate tutor. It could, if it desired, have individual wash rooms and private baths for the children. It could, if it desired, hire a superintendent of the schools at a salary of $50,000 a year. There is no limit anywhere to what plaintiff Board of Education could spend if there were no Board of Estimates to check and balance and co-ordinate taxes of plaintiff so that they would remain within reason.

We think we may take judicial notice of the personnel of Boards of Education and say that what counsel says may be done, will not be done. A reply to the argument is found in the few words of Justice Clark:

> So long as the Board of Education stayed within the tax limit and within the law as it did it was answerable to no one except the electors of the district.

Judgment is reversed, and, if necessary, a writ may issue.

A NEW DEFINITION OF THE FUNCTIONS OF THE SUPERVISOR

CHARLES L. SPAIN
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The supreme purpose of supervision is the improvement of the quality of instruction. Before the days of supervision, the responsibility for establishing or maintaining standards of instruction fell entirely upon the individual teacher. Many schools today, especially in rural communities or villages, have no supervision. The instruction in the classrooms is just as efficient or just as inefficient as the several teachers make it. There are also hundreds of city schoolrooms in which there is practically no supervision of instruction, the teacher being a law unto herself.

If we turn back to the beginnings of elementary instruction in this country, we find that the outstanding feature was the gross inefficiency of the teachers. The training of small children, far from being considered a serious business, was carried on in addition to the regular activities of life. Pupils of tender age attended the dame school. This was a school kept in the kitchen of some dame, who, for a consideration, initiated small children into the mysteries of the three R's while attending to her household duties.

In England at the same period similar schools were kept by men. In 1581 Edmund Coote published a textbook which was highly recommended to tailors, cobblers, shopkeepers, and the like on the ground that it was so arranged that any person could hear the children recite their lessons without in any way interfering with the pursuit of his trade.

Such conditions were inevitable before the days of teacher-training and before we had an educational philosophy, psychology, or technique of method. Of those days it might be said that, if there were any good teachers, they "were born, not made."

The first important step in improving instruction was the introduction of textbooks. To the inefficient, untrained teacher a text-

book has always been a haven of refuge. The general adoption of texts, first English and later American, therefore marked a distinct forward step in elementary-school instruction, because the texts furnished subject matter and ideas for teachers as well as for pupils and suggested methods and devices for drill. Furthermore, texts were helpful, in that they enabled teachers to set up objectives in terms of subject matter. This made the teaching more definite and saved time for both teachers and pupils.

From the Colonial days down to the present, textbooks have been an important factor in shaping instruction and in determining the distribution of emphasis on subject matter. While it is true that textbooks are invaluable as an agency for the improvement of instruction, it should be noted that the widespread dependence on textbooks over a long period of years has tended to fix in the minds of teachers, as well as in the minds of the general public, the idea that education must be obtained from books, that knowledge and skill acquired through experience with people and realities are not genuine education. The persistence of this idea has prevented the general acceptance of the theory that experience and education are synonymous and that a curriculum of activities is more effective in this generation than is a curriculum of subject matter.

So long as the demands made by society on the elementary school were few and the curriculum was limited to the three R's, ignorant, untrained teachers, aided by textbooks and using formal methods, were able to pass muster. As the years have passed, certain influences have modified the situation. Social and industrial changes have made life increasingly complex. As a result, society has placed new and larger responsibilities on the school. The curriculum has expanded, and the subjects formerly considered important have been elaborated and developed.

Under the leadership of Pestalozzi, Froebel, Herbart, Dewey, Kilpatrick, and others, educational ideals and aims have changed. The center of gravity in education has shifted from textbooks and subject matter to the individual child and real life-experiences. The situation as it has developed makes demands which a teacher of limited ability and little training cannot satisfy. To meet her responsibilities, she must have modern training and the advice and

assistance of highly trained specialists who are experts in their fields. Here enter the supervisors of instruction.

If we turn our attention from the teacher to the principal, we find that in the early days the principal was not only an administrator but a supervisor as well. In many communities the principal was a person of great vision, power, and initiative, who dominated the educational situation in his district. The same social and industrial changes which profoundly influenced the status of the teacher and made the supervisor necessary brought about marked changes in the functions of the principal. With the increase in the size and the complexity of school systems, the office of superintendent of schools emerged. As a necessary consequence, the independence of the principal and his opportunity for initiative were curtailed. Furthermore, the superintendent, realizing the need for more efficient teaching, organized a group of supervisors of instruction directly responsible to himself.

As his duties have become more varied and burdensome, the principal has tended to become more and more an administrator and less and less a supervisor of instruction. Thus the supervisory function has gradually passed over to the supervisor. So generally has this idea gained acceptance that in many schools the principal assumes little or no responsibility for the quality of the instruction. We have here an anomalous situation. The purpose for which schools are created and maintained is instruction. The aim of organization and administration is merely to provide favorable conditions under which instruction may proceed; yet the prevailing plan seems to force a situation under which the principal, who is probably the most permanent factor in the school system and who occupies the most strategic position, is becoming more and more a routine administrator and is giving less and less attention to the most vital thing in education—instruction. It is clearly evident that the situation demands a readjustment that will restore to the principal the supervisory function and at the same time more effectually utilize the expert training and skill of the supervisor.

While there are various and conflicting theories with regard to the function and place of the supervisor and while organizations differ from city to city, it is fair to say that in the minds of most

principals and teachers the outstanding supervisory function is the visitation of schoolrooms for the purpose of criticism and suggestion. Supervisors, of course, perform many other duties more or less important, but their classroom contacts are looked upon as the really vital and significant thing.

It is the purpose of this article to outline briefly a plan of organization which has been in operation in Detroit for several years. This plan changes the character of the function of supervision and puts the emphasis in a new place.

The supervisor.—The supervisor is an expert. He is the best-informed person in the school system with respect to existing conditions in his field and the person best equipped to solve the special problems which may arise. The supervisor is expected to be a constructive thinker, who stands ready to contribute the results of his creative effort for the benefit of the entire school system. Not only is he charged with maintaining the existing levels of efficiency in instruction, but he has the further responsibility of organizing systematic attempts to improve the efficiency of instruction. It is also his duty to discover and conserve advances in instruction made by individual teachers or principals in the school system and to provide agencies through which these advances may be made of value to the system as a whole.

The functions of the supervisor.—The functions of the supervisor may be classified in the order of their importance as (1) research, (2) training, and (3) field work.

1. *Research.*—Let it be assumed that all progress must be founded on a knowledge of the facts—on scientifically ascertained data. Research then becomes a function of prime importance because a knowledge of the facts is a necessary prerequisite to the successful performance of the other supervisory functions. In general, research is held to mean the discovery and the solution of problems of instruction through the medium of controlled experiments.

In exercising his research function, the supervisor in a general way maintains the following order of procedure.

a) He tries to discover existing defects in instruction.

b) He seeks to find either in his own system or elsewhere improved methods for the correction of defects.

c) He formulates a tentative plan for the improvement of instruction.

d) He tries the plan under controlled experimental conditions.

e) He measures the results of the experiment.

f) He formulates tentative objectives and standards.

g) He formulates a plan for the general use of the method.

h) He presents the plan to the principals for criticism, suggestion, and approval.

If the new plan is accepted by the principals, the second function of the supervisor—the function of training—begins.

2. *Training.*—Training in this connection means rendering assistance *on request* to the principals or the teachers, who must now assume the responsibility for the operation of the new method in the classroom. Training by the supervisor may take the form of—

a) Conferences with teachers or principals.

b) Visits to schools for demonstration, instruction, or diagnosis.

c) Meetings with principals or teachers for demonstration lessons or discussions.

d) Distribution of bulletins of instruction, type lessons, references for study or reading, and similar aids.

e) Organization of extension classes open to principals and teachers.

We must note the striking differences between the policy here outlined and that commonly pursued. As soon as the principals accept and approve a program proposed by the supervisor, the responsibility for the successful development of the program of instruction no longer rests on the supervisor. The initiative now lies with the principal. If he desires aid, the supervisor stands ready to render it, but the supervisor acts only when invited to do so by the principal. This changes the situation materially.

Under the relationship established between teacher and supervisor which still exists in many places, the supervisor enters the schoolroom as a critic, as one having authority to criticize and disapprove. Differences between supervisors and teachers usually arise as a result of the clashing of their personal views with regard to methods of procedure. Under the plan here proposed a teacher who feels the need of assistance, acting through the principal, invites the

supervisor to visit her room. The supervisor now comes as one bringing needed aid, and his visit is welcomed. When the teacher and the supervisor approach the problem on this basis, there is little room for controversy. Together they analyze the situation, and they agree upon remedial measures to improve conditions. In other words, the supervisor comes to the school not for the purpose of autocratically telling the teacher what to do but rather for the purpose of assisting the teacher to find out what it is necessary for her to do in order to improve her instruction. Thus the relation existing between teachers and supervisors is vastly improved.

3. *Field work.*—The function which ranks first in importance in many school systems now becomes secondary. Under the plan here suggested a supervisor makes two types of visits to the schools. From time to time he visits on his own initiative for the purpose of becoming familiar with existing conditions in his field. A progressive supervisor must keep himself informed. On such visits he may comment on the work of the teachers, but he must bear in mind the fact that the principal, not the supervisor, is responsible for the quality of the instruction of the individual teachers. Therefore, such comments as the supervisor makes should be in the presence of the principal or with his knowledge. All other visits made by the supervisor are on request from the principal.

There is a clear distinction between teacher direction, which is the function of the principal, and teacher-training, which is the responsibility of the supervisor. After the supervisor has provided the principal with a scientifically prepared method and technique of instruction, it becomes necessary for the supervisor, with the cooperation of the principal and the teachers, to set up general and specific standards which the principal may use in judging and evaluating the work in the classrooms.

It is not expected that the principal shall have the expert knowledge of content and technique which the supervisor must possess. The principal, however, should have a good general knowledge of the principles involved and of the method to be followed, so that by the use of established standards he may judge and direct the work of the teachers. He must also be informed as to sources of information and must be able to direct the teachers to classrooms in which

an approved quality of instruction is exemplified. At all times he should realize that he has at his command the expert service of the supervisor.

If the principles of supervision here enunciated are sound, they are applicable in a greater or less degree to every situation in which instruction is involved. Whether the city is large, of medium size, or small, or whether the schools are in isolated rural communities, the factors involved in improving instruction remain substantially the same. The functions of instruction, supervision, and administration must be exercised. The use of experimentation as a basis for the improvement of instruction in the classroom is just as urgent in a small village as in a metropolis. The same is true of teacher-training. Just in the degree to which the complete exercise of these functions is possible will the quality of the teaching improve.

The large city school system should offer the best opportunity for the exemplification of the theory under consideration because the functions of instruction, supervision, and administration are clearly differentiated and the several responsibilities are borne by different individuals. On the other hand, conditions for the rational development of a plan of supervision are far from ideal in the large centers of population, where tenure of office is secure and where there is likely to be a complacency which looks askance at innovations as radical as those proposed. An ideal working out of this plan contemplates principals with adequate training who can interpret modern ideals and methods to teachers. Many principals do not measure up to this standard. The general scheme implies a supervisor who is an expert, capable of thinking constructively. Needless to say, many supervisors do not meet these requirements.

Until very recently neither principals nor supervisors have had an opportunity to secure training in the principles of experimentation. In most large cities and in many smaller cities this lack is, in a measure, supplied by departments of research. The directors of such departments are usually trained in scientific method and are able to supply the expert knowledge and skill in this field which most principals and supervisors lack. The department of research may become an important factor in developing a rational method of supervision. The director can help the supervisor or the principal to

set up experiments, measure results, diagnose conditions, and plan remedial measures.

The possibilities for co-operation between the department of research and the supervisor as they have been developed in Detroit can be clearly shown by a concrete illustration. After thoroughly analyzing the situation, a supervisor is convinced that the prevailing methods of teaching primary reading are faulty. He finds that there is too much teacher domination; too little utilization of child interests and activities; no opportunity for self-direction, self-criticism, and self-help on the part of the pupils; and no provision for individual progress. With the co-operation of teachers, principals, and the research department, the supervisor devises methods and materials to improve the situation. A small group of teachers who volunteer are trained for an experiment. A controlled experiment is planned and carried out. The measured results indicate the superiority of the new method. As there is danger in generalizing from a limited experiment, a larger experiment, involving more schools and more teachers, is arranged and completed. The measured results again are favorable to the new plan.

The theory and the technique of the improved method are now presented to a group of principals, and suggestions and criticisms are invited. The method as finally modified is accepted and approved by the principals. The method is made optional; principals who so desire may use it. After the method has been approved, the supervisor, in co-operation with the principals, prepares goals and standards as well as a list of points to observe in class instruction as an aid to the principals in directing the work. The supervisor *on request* gives aid and training to teachers who are using the method. A scheme of instruction thus developed and made optional must justify itself in actual practice before its use becomes general. A method which in this way gains universal acceptance in a school system must, of necessity, have distinct merit.

It is significant that a supervisor who introduces his ideas into a school system in this manner is not only achieving the definite end he has in view but is at the same time changing the attitude of all teachers and principals who have voluntarily entered into the project. Having done this, the supervisor can feel assured that the

teachers and the principals will be responsive to future modifications and changes which he may propose. This is a condition which makes for progress and continued growth.

The recent trend in elementary organization which has brought in trained specialists in art, music, nature study, library, auditorium, and various other fields of experience makes the proposed plan of supervision especially effective. If every school employs a specialist in art education, it can readily be seen that the problems of the supervisor in carrying on research, teacher-training, and field work are greatly simplified. A supervisor who has available a group of specialists whose training is to a degree comparable to his own is able to experiment, to modify methods, and to bring about improvements in instruction under the most favorable conditions.

This discussion sets forth certain principles of supervision which are unorthodox and depart widely from established procedure. Theoretically, they appear to be sound. Furthermore, they will work in actual practice. In Detroit it has been proved over a period of years that the scheme of supervision here outlined not only makes for better instruction but, in addition, develops an attitude of inquiry on the part of teachers and principals, which opens the way to continued progress and growth.

SUMMARY OF READING INVESTIGATIONS (JULY 1, 1924, TO JUNE 30, 1925). II

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This is the second of a series of articles in which the reading investigations published between July 1, 1924, and June 30, 1925, are summarized. The first article appeared in the February number of the *Elementary School Journal* and contained an annotated bibliography of seventy-three investigations. It is the purpose of this article and of two which will follow to present a brief summary of the findings of these studies. On account of limited space, it will not be possible to include detailed criticisms of the methods employed by the investigators.

The organization of the articles is similar to the organization of the monograph entitled, *Summary of Investigations Relating to Reading*. With very few exceptions, each center heading in the articles is a part or all of a chapter heading in the monograph. This plan has been adopted in order that the results of recent studies may be readily compared with the findings of earlier investigations. The reference numbers correspond to those in the bibliography.

FACTS CONCERNING READING IN MODERN LIFE

Opportunities to read in rural homes.—Vaughn (**65**) made a questionnaire study in Michigan to determine the opportunities for reading which 448 rural homes provide. The pupils reported the number of books in their home libraries which they had read or would read; the average number was 1.8; the largest number, 8. In 162 homes, or 33 per cent of the total, no such books were reported. The small number of books in the homes indicates that the parents do little or no book reading. "If the child is to read books, it is apparent that he must secure his books from sources outside of the home." The average number of magazines and newspapers read was 4.2; the maximum number, 9. "If the number of magazines and newspapers found in the homes indicates the nature and the amount of adult

reading, we may assume that this type of reading receives greater stimulation from the parents than does book reading."

Number of books read independently by rural children.—Vaughn (65) also determined the number of books read independently during a school year by the children in forty rural schools in Grades III–VIII, inclusive. The maximum number of books read by any pupil was seven; only ten pupils read more than four; 15 per cent of the pupils read no books; 28 per cent read no books or only one. The average number of books read per grade was as follows: third, 1.3; fourth, 2.0; fifth, 2.5; sixth, 2.8; seventh, 2.9; eighth, 3.2. The small amount of reading was partly explained in the following terms. "The number of books in the home libraries probably indicates that the parents do not read books. Consequently, the child receives from his parents very little stimulation to read. The large number of books in the school libraries and the small amount of reading done by the children suggest that the pupils are not stimulated to read by the teacher."

Amount of magazine and newspaper reading among rural children.—Vaughn's study (65) showed that the largest amount of time spent by a rural child in reading magazines and newspapers was twelve hours a week. A large percentage of third- and fourth-grade pupils did little or no reading of magazines and newspapers. Very few pupils in the upper grades reported no such reading. The average number of hours a week devoted to such reading per grade was as follows: third, 0.5; fourth, 2.0−; fifth, 2.2; sixth, 3.0; seventh, 3.4; eighth, 4.2. The relatively large amount of time devoted to reading newspapers and magazines as compared with the amount of time devoted to reading books was explained in part as follows: "If the number of magazines and newspapers found in the homes indicates the nature and the amount of adult reading, we may assume that this type of reading receives greater stimulation from the parents than does book reading."

The amount and character of the reading done by gifted children.—Terman and others (59) selected one thousand gifted children in California and made a study of their reading interests. Information of two types was secured: (1) answers made to questions by parents, teachers, and the children themselves; (2) records kept by the chil-

dren of the books which they read during a period of two months. These data were compared with similar data for a group of unselected children. The following summary statements are significant.

> The mean number of hours of reading per week by gifted children (parents' estimates) increases from about six at age seven to twelve at age thirteen. At all ages below thirteen the mean is slightly higher for gifted boys than for gifted girls. . . . . The average gifted child of seven years read more books in the two months than did the average of the control group for any age up to fifteen. The average of gifted children at eight or nine years is three times that for the control group of the same age. By this time the average gifted child has almost attained his maximum as to number of books read. . . . . Classification of the books read by the two groups brought out the fact that the gifted children read over a considerably wider range than did the control children, and that they read more science, history, biography, travel, folk-tales, informational fiction, poetry, and drama. On the other hand, in proportion to the total number of books read the gifted read fewer books of adventure or mystery and far less emotional fiction [59: 453–54].

The position taken by Terman in presenting the results of this study is that "general intelligence influences not only the amount of reading but also its quality and range." Investigations are needed to determine the extent to which the kind of reading done by these gifted children affects intelligence.

Opportunities for reading in the homes of junior and senior high school pupils.—In a study among 2,599 junior and senior high school pupils of Franklin County, Ohio, Weiser and Ashbaugh (69) found that the number of books in the home libraries of pupils in village schools averaged 232; of pupils in centralized schools, 143; and of pupils in rural schools, 80. These figures are much higher than those reported in other studies. "Approximately 30 per cent of the homes furnish the boys and girls with reference books, such as *The Book of Knowledge* and *The World Book*. Between 25 and 30 per cent report some kind of encyclopedia, the *Brittanica* occurring most frequently" (69: 253). Less than 1 per cent of the pupils reported that there was no Bible in the home. Children and parents read practically the same magazines, usually popular magazines. Very few pupils read magazines of the general informational type. On the other hand, the pupils frequently reported that their fathers read magazines pertaining to their vocations.

Amount of reading done by part-time workers.—Rasche (50) collected information from 7,065 part-time workers in Milwaukee, ranging from fourteen to eighteen years of age, in order to determine the amount and character of their reading of books, magazines, and newspapers between July 1 and December 1, 1924. The total number of books read during this period was 26,365; the total number of different titles was 9,130. Approximately 75 per cent of the girls reported that they had read one or more books; about 70 per cent of the new boys in the part-time schools and 60 per cent of the old boys made similar reports. Slightly smaller percentages of both boys and girls reported magazine reading. Approximately 95 per cent of both boys and girls reported newspaper reading.

In discussing the results of his study, Rasche points out the fact that "the newspaper has a greater grip on young workers than have either magazines or books." His findings also indicate that young workers have a very strong interest in the newspaper even before they enter employment. This interest strengthens as they become older. At the time employment begins, their interest in the reading of books is about the same as their interest in reading magazines. As they become older, their interest in books drops to third place. The figures for the boys show a loss of interest both in books and in magazines. As girls become older, however, their interest in magazines increases, and they retain their earlier interest in books.

Character of the reading done by part-time workers.—Rasche's study (50) of the titles of the books read by part-time workers showed that there were 24,006 readings in fiction and 2,359 readings in other types of literature. Of the 9,130 different books read, 2,817 were not circulated by the public library. Rasche reports that these books were not in the library because they were deemed unsuitable. Nevertheless, they were read at least one time for every two times that suitable books were read.

The names of the magazines which were reported were listed in the order of their popularity. Rasche points out the fact that the popular short-story magazines and the salaciously suggestive magazines are all too frequently read. An analysis of the contents of the newspaper enjoyed most by the young workers revealed the following facts: the comics are enjoyed by more than 85 per cent of the

boys and girls; the city news is read by from 56 to 74 per cent of the workers; advertisements are read by from 31 to 52 per cent; the story sections are read by from 42 to 82 per cent; and the world-news is read by from 48 to 74 per cent. Unfortunately, less than 20 per cent of the boys and girls have acquired the habit of reading editorials.

Amount of time devoted by college students to unassigned serious reading.—Millis (40) and other members of a committee reported the results of a questionnaire study made among undergraduate students of the University of Chicago to determine the number of hours a week spent in reading serious books and magazines not directly connected with their university courses. A summary of the replies of 1,492 students follows: "170, or 11.4 per cent, report no time devoted to serious reading; 161, or 10.8 per cent, report 1 hour a week; 300, the largest number and 20.1 per cent, report 2 hours a week; 238, or 16.0 per cent, report 3 hours a week; 188, or 12.6 per cent, report 4 hours a week; 167, or 11.2 per cent, report 5 hours a week; the remaining 268, or 17.9 per cent, report 6 or more hours a week" (40: 20). The tabulations show that a majority of the students reported three or more hours of serious reading each week. The wide variation in the amount read is striking and significant. An analysis of the students' reports and university records shows that there are no significant differences in the amount of time devoted to serious reading by students in different college classes, by students grouped according to class marks, or by students taking two, three, or four majors of work.

Nature of the reading done by adults.—In order to determine what adults read, Donovan (16) first made an analysis of the material in the issue of the *Chicago Daily Tribune* for July 21, 1924. "The topics which received by far the greatest amount of space, as shown by the number of lines devoted to them, were, in the order of emphasis, athletics, markets, crime, and government and politics. Of those topics which occupied the front page, crime led all the rest. Reports of accidents also received prominent placement. Government and politics came third" (16: 371).

The second step was an analysis of the contents of the *Literary Digest* for July 19, 1924. The topics in the order of their importance,

as determined by the number of column lines devoted to them, were government and politics; nature; personal glimpses; music, art, and letters; science; religion; investments and finance; wit and humor; poetry; current events; and personal items. The topics found in the periodical were more cosmopolitan than were the topics found in the newspaper.

The third step was to determine the types of books withdrawn from the Chicago Public Library during 1923. The major types of books withdrawn and the percentage of each follow: fiction (adult and juvenile), 52.3 per cent; arts and sciences, 22.8 per cent; literature and language, 8.8 per cent; history and biography, 5.7 per cent; foreign life, 4.8 per cent; travel, 2.8 per cent; theology, 2.8 per cent. The preference of the public for fiction was verified by inquiry at the Kroch International Book Store and Marshall Field's book department, both of which reported greater sales of fiction than of all other types of books. They also reported that there is a "liberal and apparently growing demand for biography and travel. The sale of children's books is increasing more rapidly than is the sale of adult literature. The character of the books demanded appears to be of a higher order than formerly" (16: 374). A supplementary fact of wide significance is that the reading interests of people at a given time may be determined by a passing event or even by a slight suggestion.

RELATION OF READING TO SCHOOL ACTIVITIES

Relation of achievement in reading to progress in school subjects.—Dickinson (15) determined the scores of 149 ninth-grade pupils on (*a*) the "Cross Out" Intelligence Test, Schedule E, from Indiana University, (*b*) the Thorndike-McCall Silent Reading Scale, and (*c*) the Thorndike Visual Vocabulary Scale A2, X Series. He correlated these scores with the class marks made by the pupils in the eighth, ninth, and tenth years of their school work. The coefficients of correlation range from .233 to .743. The writer concluded "that reading ability plays an important rôle in determining scholastic success."

DIFFICULTIES ENCOUNTERED IN TEACHING READING

Difficulties in teaching reading and their correctives.—In 1921–22 Streitz (55) secured reports from teachers in Illinois schools concerning the specific difficulties which they had encountered in teaching

reading. She then visited these teachers in order to determine correctives for the various specific difficulties listed. While the published report has very little scientific value, it indicates what teachers believe their difficulties are, and it presents facts and suggestions which may aid teachers in correcting the difficulties reported. The difficulties, as classified in the report, follow.

MISCELLANEOUS QUESTIONS RELATING TO THE TEACHING OF READING

1. Shall script or print be used in presenting words to a beginning reading class?
2. What kind of material should be memorized, and how much memorizing should be done?
3. Should children be encouraged to seek aid from their parents in learning to read?
4. What are the criteria for selecting supplementary reading material?

GENERAL DIFFICULTIES ENCOUNTERED IN THE TEACHING OF READING

1. How to develop an interest in reading.
2. How to enlarge the fundamental experiences of children from which meaning is derived.
3. How to provide for individual differences.
4. How to get pupils to "see" words.
5. How to enable the pupil to acquire an adequate vocabulary.
6. How to get pupils to understand assignments in reading.
7. How to teach children to use the dictionary.

DIFFICULTIES ENCOUNTERED IN TEACHING ORAL READING

8. How to create and maintain an interest in phonetics.
9. How to develop a good oral-reading mechanism.
10. How to develop skill in the use of flash cards.
11. How to correct carelessness in pronunciation.
12. How to get children to speak distinctly.
13. How to get children to phrase.
14. How to correct speech defects.
15. How to get children to read with more expression.
16. How to secure appreciation in reading.
17. How to teach poetry.

DIFFICULTIES ENCOUNTERED IN TEACHING SILENT READING

18. How to train pupils to be fluent in the recognition of words and phrases.
19. How to increase the span of recognition.
20. How to secure appropriate supplementary material in usable form.
21. How to deal with selections in school readers which are too difficult or otherwise inappropriate for a particular class.

22. How to teach silent reading in the primary grades.
23. How to get children to comprehend the material which they read.
24. How to train pupils to recognize certain difficult words or letters.
25. How to eliminate lip-movement in silent reading.
26. How to develop speed in silent reading.

This list of difficulties is very suggestive. It may be used by teachers and supervisors in distinguishing the difficulties which they encounter. The statement should be added that it is by no means inclusive.

TIME ALLOTMENTS

A comparative study of time allotments.—Ayer (3) reported a comparative study of time allotments in reading and other elementary-school subjects for 1888, 1904, 1914, and 1924. His records show that

TABLE I*

NUMBER OF MINUTES A WEEK ALLOTTED TO LITERATURE AND READING IN FOURTEEN SCHOOL SYSTEMS

Grade	Highest Number of Minutes	Lowest Number of Minutes	Average Number of Minutes
V	240	75	167.9
VI	240	75	164.6
VII	183	60	116.8
VIII	183	60	100.3
IX	183	75	118.4

*23: 107

reading received more time in each of these four years than did any other subject. The nearest competitor is arithmetic, which received about three-fourths as much time. The total number of minutes a week devoted to reading in the first eight grades for each of the four years studied was 2,332, 2,250, 2,032, and 2,003, respectively. With two exceptions, the variation from grade to grade in the amount of time given to reading in each of the four years studied is uniform. In 1888 there was a distinct tendency in the middle and upper grades to give more time to reading than has been given recently, and in 1904 a relatively large amount of time was devoted to reading in the third, fourth, and fifth grades.

Time allotted to literature and reading in Grades V–IX, inclusive.—Glass (23: 106–19) made a study of the time allotted to literature and reading in Grades V–IX, inclusive, in fourteen school systems.

The facts secured revealed wide variation in practice. Table I shows the highest, the lowest, and the average number of minutes a week devoted to literature and reading. The percentage of the total English time that was allotted to literature and reading was determined; the results are shown in Table II. In the fourteen school systems ap-

TABLE II*

PERCENTAGE OF THE TOTAL ENGLISH TIME ALLOTTED TO LITERATURE AND READING IN FOURTEEN SCHOOL SYSTEMS

Grade	Highest Percentage	Lowest Percentage	Average Percentage
V	48	32	40.4
VI	50	27	40.7
VII	66	25	36.0
VIII	66	25	37.2
IX	66	25	44.6
All grades	.....	.....	39.9

*23: 111.

proximately two-fifths of the total English time was devoted to literature and reading. This fact indicates a distinct tendency to stress social and cultural values rather than to emphasize exclusively the purely formal phases of English.

LIBRARY FACILITIES IN SCHOOLS

Libraries in forty rural schools of Michigan.—Vaughn (65) made a questionnaire study in forty rural schools of Michigan to determine the number of library books available. The numbers reported were surprisingly large, the average being 242. The maximum number was between five and six hundred. The large number of books "may be partly accounted for by the state's assistance to the schools in buying books." Funds for school libraries are provided from the money paid to the state for penal fines, which is used exclusively for this purpose. In addition, "the school board and also the electors of the school district have authority to vote a tax for library purposes. The state superintendent of public instruction provides the rural school districts with an approved list of books from which to select."

Rural-school libraries in fifty-five counties in Minnesota.—In the autumn of 1924 a study (56) was made under the direction of Anna

Swenson to determine the number and types of books in rural-school libraries, the percentage of each type, and the kinds of books read by the children of each grade. Teachers from fifty-five counties in Minnesota co-operated. The total number of books reported was 740,538. "The median number of volumes in the libraries of forty-two counties in Minnesota is 204." The books read by ten or more pupils in the fourth grade are reported; there are more than fifty-five titles in the boys' list and more than seventy-five titles in the girls' list. Some of the important conclusions follow: "The majority of rural children read very few books, and some read none at all. . . . . There is a great dearth of children's reading in the homes. . . . . Children are reading much material that is extremely easy. Fourth-grade boys and girls are reading books which are suitable for the first and second grades. . . . . Rural libraries have very few books on history, geography, and travel that appeal to children. Some libraries are limited largely to fiction for the older pupils" (**56**: 4).

Rural-school libraries in one county in Ohio.—Buckingham (**8**) reports the results of a study made by Ashbaugh concerning the books in the libraries of all the rural schools in one county in Ohio. The findings showed a range from 16 to 488 volumes. "One-half of these schools had less than 125 books, and one-fourth had less than 90. . . . . A classification of the titles shows 40 per cent to be in the field of English literature, including fiction, descriptive and narrative prose, poetry, and essays; 17 per cent were in science; 15 per cent in history and citizenship; 11 per cent were textbooks, including supplementary readers; 8 per cent, geography; 3 per cent, biography; 2 per cent, agriculture; and 2 per cent, reference works, not including dictionaries. Less than 1 per cent were hygiene books, and less than 1 per cent were dictionaries, Bibles, and books devoted to art and music" (**8**: 229). Reports were also secured from the superintendents of ten other counties, who sent lists of books from their average and poorest libraries. Three reported that one or more schools in their respective counties had no library at all. "The other seven showed their poorest libraries to have from 28 to 121 volumes. The number of books per school in the ten libraries classified by the superintendents as average, varied from 29 to 215. The average number of

volumes in the poorest libraries was 50; in the so-called 'average' libraries, 131" (8: 229).

Library books in rural schools in Illinois and Ohio.—Rethlingshafer (51) sent questionnaires to the teachers of the rural schools in Adams County, Illinois, and Butler County, Ohio, to determine, among other things, the number of books in each school library. Replies were received from thirty-nine one-room elementary schools, four centralized schools, and four high schools in Adams County and from twelve centralized schools in Butler County. The total number of books in the thirty-nine one-room rural schools of Adams County was 2,000. Almost one-fifth of these books were reported as unsuitable for use in any grade. There were no library books in nine of the schools. The average number of books per pupil was four.

Inequality of library service was evident in both counties and in the various types of schools studied. For example, in the case of the thirty-nine one-room schools there were 262 pupils in twenty schools who had access to a total of 281 books, while there were 273 pupils in nineteen schools who had access to 1,719 books. In the case of the centralized schools, 901 elementary pupils in nine schools had access to 1,210 books, while 916 elementary pupils in seven schools had access to 2,723 books. Among the high schools, 247 pupils enrolled in eight high schools in Adams County had access to 2,016 library books, and 256 pupils in four high schools in Butler County had access to a total of 3,933 books.

The average number of books for each pupil in the elementary and high schools ranged from .88 in the first grade to 11.64 in the high school. The one-room schools had more books per child than did the centralized schools, but, on account of the small enrolments in the one-room schools, the children were not in contact with as many books as were the pupils in the union schools.

State aid to rural-school libraries.—Rethlingshafer (51) also made an extensive study to determine the means used by the forty-eight states to provide libraries in rural schools. She first examined the state laws and found that in 1923 thirty-eight states made some legal provision for rural-school libraries. The following is a summary of her findings.

1. The laws of nine states fix a certain amount to be expended annually by rural-school authorities for library books. The value of a law which requires an annual expenditure depends on whether the amount required is large enough adequately to equip the schools in proportion to their enrolment. How much should be required cannot be determined by this study. California and Idaho have the largest annual expenditure required by law for their rural-school libraries. Twenty-five dollars for each teacher is the sum to be spent in California, and 3 per cent of all the moneys apportioned to the school district must be used in Idaho in the purchase of library books.

2. Twelve states limit the expenditures of their school boards for library books. They fix by law a maximum amount which can be expended annually for such books. Iowa, Missouri, and Nebraska restrict the expenditure for this purpose to twenty cents or less for each person of school age in the district. In other states a more generous expenditure may be made if the school boards desire.

3. Fifteen states encourage the local districts to purchase books for their schools by offering state funds, $10 to $268, which can be used for this purpose provided a certain amount is first raised by the local community. This law encourages the school board or the community of a rural district to provide for the school library. Such a law, however, is subject to the following limitation: every rural community will not be sufficiently interested in the schools to gather either by subscription or by taxation the necessary sum which the state demands before its money can be used.

4. In nineteen states books bought for the use of rural-school pupils need not remain in one school, in order that their usefulness may be increased. This circulation of library books among rural schools may be effected in three ways: (*a*) The school board may provide for the redistribution of the library books in the schools under their care. (*b*) The exchange of library books may be made through the organization of a township library. (*c*) The county may be the library unit for the exchange of books among the rural schools [**51**: 37–39].

Rethlingshafer also determined the ways in which state departments of education and library commissions render aid to rural-school libraries. The replies to a questionnaire revealed a number of significant facts. Nine states include library standards in the classification of elementary schools. The duties of inspectors in some states include the evaluation of libraries. A library director is an officer of some state departments of education. State departments of education secure economy and efficiency by contracting with one or two companies to provide books at reduced cost. Lists of books for libraries are supplied by several state departments.

[*To be continued*]

IMPROVEMENT IN THE TECHNIQUE OF TEACHING THROUGH A RECOGNITION OF PRINCIPLES IN DEMONSTRATION TEACHING

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Demonstration teaching has come to be a recognized means of training teachers in service. As a result of direct questioning, the writer has found that a large percentage of the teachers in her college classes and under her administrative and supervisory guidance consider the demonstration lesson a preferred supervisory agency.

How to make demonstration teaching reach the maximum in suggestive help is a problem which invites consideration and experimentation. There are two methods of procedure somewhat widely used at present. In the one case a capable classroom teacher conducts the recitation in her own room with her own pupils and is observed by teachers who are teaching the same or an approximate grade. There are two very obvious objections to this method of procedure: (1) the amount of advertising which may be given to particular teachers and (2) the feeling on the part of other teachers that the lesson is "staged." Both of these dangers can be overcome by distributing the demonstration teaching among several teachers, preferably in different buildings, and by planning the lessons with such frequency that the teachers lose the fear of an unkindly critical attitude on the part of the observers. The teaching will become more natural and consequently of more value. Demonstration teaching by the classroom teacher has the following advantages. It provides a natural situation; it recognizes and capitalizes the ability of the teaching staff; and it furnishes an opportunity for elevating the professional standards of the teachers.

The second method of procedure, that in which the supervisor teaches the lesson, is accompanied by the danger of an artificial situation and by the danger of insincerity in discussion. A very

frequent comment on such demonstration teaching is that personality is an important factor. While personality must always be a large contributing factor in any teaching, teachers should be led to see that there are other attainable and desirable goals. In order to avoid these and other dangers of the demonstration lesson, the writer has endeavored to have a teaching relation with the pupils in so far as possible and to eliminate the personal element by directing the observation toward the children. Further, she has endeavored so to guide the discussion that principles are recognized and established, thus avoiding the more or less complimentary comments about the teaching.

The following questions have been found to be helpful in directing observation and discussion; they also serve as a test for the teacher's use in self-analysis.

TEST OF TEACHING

1. Did the teacher so guide the situation that the pupils felt a strong social motive for best effort?
2. Did the teacher's procedure show a knowledge of—
   a) The capacity and the interests of the pupils?
   b) The experience of the pupils?
   c) Individual differences?
   d) Subject matter?
3. Were the pupils encouraged to work together as a social group?
4. Were the pupils encouraged to show initiative—
   a) By offering suggestions as to procedure?
   b) By freely questioning and criticizing one another?
   c) By supplementing the thought?
   d) By providing materials?
5. Were the pupils encouraged to evaluate and organize—
   a) Subject matter?
   b) Opinions?
   c) Conduct?
   d) Time?
6. Did the recitation show evidence of specific aims on the part of the teacher with regard to—
   a) Knowledge?
   b) Skills?
   c) Habits?
   d) Attitudes?
7. Were there justifiable results in terms of Nos. 1 and 6?

8. Were there evidences of further valuable activity?
9. Were there evidences of human mutual interest and sympathy between pupils and teacher?

Such questions are, of course, more helpful if they are suggested by the group. This can be done at a previous meeting by group discussion, and mimeographed copies of the questions can be sent to the teachers before the demonstration lesson. Each teacher therefore comes prepared to observe with a definite objective. A specific instance may serve to illustrate.

Having taught a demonstration lesson for each of three groups —first- and second-grade teachers, third- and fourth-grade teachers, fifth- and sixth-grade teachers—the supervisor called a meeting for discussion. Such a meeting may immediately follow the teaching if the time is limited or if the teachers are overburdened with supervisory meetings, but a meeting held later has the advantage of providing opportunity for a better organization around larger units of thought. The discussion should aim to establish important principles of procedure rather than deteriorate into a petty repetition of details. The teacher who is troubled over the smaller details of technique, however, should not be suppressed in her efforts to secure help in overcoming her deficiencies, for often the difference between the artist and the artisan is largely due to a difference in attention to details.

For the discussion group a stenographer's report of the lessons taught had been mimeographed, and copies were distributed to the teachers to clarify any points brought out by the discussion. Certain principles of teaching were suggested by the three groups of teachers and listed on the board. At the request of the teachers, the principles were later mimeographed and distributed for future reference and guidance.

The principles are here listed, not because they represent a complete summary of educational principles—such a claim is not intended—but because they represent the actual outcome of a real situation which was productive of constructive thinking on the part of the teaching staff. It is significant that the principles were stated in a positive way as *things to do*. It is also significant that in future private conferences the supervisor found that the teachers were

eager to discuss their own lessons in terms of recognized principles, thus establishing a higher professional standard for supervisory criticism.

Principles of Teaching Derived from a Discussion of Three Demonstration Lessons

1. Arouse the interest and the curiosity of the pupils.
2. Relate school work to life as one means of creating a desire on the part of the pupil to learn the new subject.
3. Build the situation to show the pupil the necessity of acquiring the new knowledge.
4. Appeal to the child's love of dramatization and his instinct for imitation as a means of securing interest.
5. Ask questions to create an apperceptive basis, using former knowledge as a means of interesting the pupil and increasing knowledge.
6. Recall past experiences and relate them to the new subject.
7. Cause a problem to grow out of the pupil's own interest, thus developing the child's initiative and also making him feel the responsibility of solving the problem. In stating and solving the problem, the child has an opportunity to analyze, select, evaluate, and express thought accurately and concisely.
8. Use the child's instincts, thus economizing in the learning process.
9. Use carefully selected devices, thus appealing to the manipulative instincts of the child, his visual imagery, and his creative ability.
10. Motivate work by appealing to the child's desire for social approval.
11. Arouse a spirit of friendly rivalry by offers of appropriate rewards.
12. Use inductive teaching when developing a definition or rule of procedure.
13. Provide variety of procedure in drill lessons to secure repetition and practice.
14. Make use of the law of vividness in order to appeal to the individual differences of the children, remembering that some learn readily through what they hear while others learn readily through what they see.
15. Set standards high enough to secure the child's best effort toward attainment but not so high that there is no hope of reaching them. Make them a means of encouragement, not discouragement.
16. Give correct first impressions.
17. Follow logical procedure based on psychological principles.
18. Conduct co-operative type of recitation so far as possible, thus developing the child's responsibility, causing him to become a critic of his own work, developing his initiative, and securing well-directed socialized pupil activity.
19. Lead the pupils to work as an orderly social group, thus teaching co-operation and mutual helpfulness.
20. Use reference work as an aid to study.

21. Have the pupil verify statements by the use of supplementary materials or in other ways that will help in developing the child's resourcefulness.

22. Develop imaginative power and ability to form original ideas by appropriate questions.

23. Ask simple, definite, thought-provoking, stimulating questions.

24. Use the child's response wisely; keep his thinking related to the subject in hand.

25. Economize time by omitting unnecessary materials.

26. Correlate English with every other subject and, so far as possible, correlate other subjects with one another.

27. Enlarge the vocabulary of the pupil by relating any new word to an old or familiar situation.

28. Lead the child to organize his own summary and to form his own conclusions, thus clinching his ideas.

29. Increase the pupil's ability in oral expression by enlarging the vocabulary and by developing freedom and ease.

30. Make the pupil happy in his work, thus insuring thorough work and right attitude.

31. Guide in the making of outlines as a means of securing a definite check, co-operation of pupil, good organization, habits of logical thinking and reasoning, and discrimination of subject matter.

32. Have a specific problem and outline, thus guiding in study by providing a definite goal to be reached and a direct road for reaching the goal.

33. Persist in the realization of the aim of the lesson.

34. Arouse the civic and community interests of the pupils.

35. Organize lesson plan carefully but make it capable of flexibility.

36. Develop the power of observation and help the pupil to acquire ability to adapt himself to his surroundings.

37. Develop the desire to read for pleasure and information.

38. Bring out the moral situation incidentally, thus fitting school work to life's need.

39. Make extensive advance preparation, thus giving yourself time to realize the possibilities and to make the proper assignment.

40. Provide opportunity for the application of the child's knowledge to concrete situations.

41. Show appreciation of the children's faithful work by an appropriate reward—for example, a story or a special library privilege.

42. Secure mutual interest and sympathy between teacher and pupil as a means of obtaining the best work.

43. Do not forget to add the occasional touch of humor in the recitation, making yourself and the school more human.

THE STATUS OF TECHNICAL GRAMMAR IN THE ELEMENTARY SCHOOL

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In speaking of the changes in educational standards and methods, a business man said recently:

> I notice that grammar isn't taught any more. I am glad to see that school people are beginning to emphasize essentials and are mixing a little common sense with their pedagogy. What useless nonsense we used to memorize! When I was about ten years old, Uncle Lucius used to greet me with "Well, young man, what are you learning in school?" Then invariably he would add sharply, "Can you conjugate the verb 'to be'?" I always felt much chagrined when I had to confess my inability to cope with this verb. Time after time the old man would shake his head mournfully at my usual negative answer to his stock question and predict a sad outcome for the next generation.

Grandfathers of today do not shake their heads dubiously over the inability of the youth of ten to conjugate and parse and diagram, but grandparents and business men of this generation frequently express their regret that young people who have spent ten or twelve years in school cannot write an acceptable letter or speak correct English.

During the past fifteen or twenty years there has been a growing conviction that something must be done toward improving the speaking and the writing of the children in the elementary school. Since the more universal need is for better speaking, one of the first steps toward improvement has been the placing of greater emphasis on oral English in the schools. Oral composition rather than written composition has been stressed, and ear training has been emphasized as a means of securing correct speech.

In making critical surveys of the methods of teaching English, instructors noted that formal or "technical" grammar apparently did not carry over into either oral or written composition. A pupil would recite glibly in class, "A verb must agree with its subject in person and number," or repeat without an error, "Third personal

pronoun: nominative, 'they'; possessive, 'their' or 'theirs'; objective, 'them.'" A few minutes later this same pupil would shout on the playground, "Where is them balls, Jimmie? Was they left inside?"

A child would unhesitatingly repeat in class from memory, "Whenever ambiguity would arise from its omission, a comma should be used," and in the next class period write a page of sentences unbroken even by periods, to say nothing of commas. In a test he would write correctly the rules for agreement of pronouns and antecedents and in original sentences violate every rule that he had quoted in the same test.

Because the study of grammar did not seem to affect the pupils' speech and writing, English teachers in many elementary schools practically eliminated formal grammar from the course of study. As a result, pupils entered the secondary school knowing little, if anything, about sentence construction or grammatical terms; teacher and pupil had no common language, grammatically speaking. It seemed useless for the teacher to point out to a pupil who had never heard of a participle his error in using a "dangling participle." The suggestion that he should make subject and verb agree had little effect if he was unable to recognize the subject of a sentence or to tell a verb from an adverb. When the pupils in the tenth grade were told that they could change the emphasis in a sentence by transposing the subordinate clause, they were puzzled, because they did not know whether a subordinate clause is a mark of punctuation or something connected with a new system of penmanship.

After teaching for year after year pupils who came into their classes with no previous knowledge of English grammar, instructors in secondary schools developed a sentiment strongly in favor of old-fashioned grammar for the elementary school. They argued that it would be awkward to teach a boy to drive an automobile who spoke and understood only a language foreign to the teacher; it is equally awkward to teach a boy to use the English language correctly and effectively if grammatical terms are alien to him.

The new grammar advocated was more simple than the old-time technical grammar. Many fine distinctions and difficult phases of the subject were ignored in the modified form. In many schools

grammar was restored to a place in the curriculum. Where formal grammar has been taught more recently in the upper grades of the elementary school or in the first years of the secondary school, it has been this simple, modified type that has predominated.

Experience with this modified grammar has not proved entirely satisfactory. There is still a general belief among both educators and the public that something must be done to improve the instruction in English so that the classroom study of the subject will function in the everyday speaking and writing of the pupils. Instructors are asking, "What shall be the next step toward improvement? If one line of progress leads toward formal grammar, how much shall we teach, and how shall we teach it effectively?"

Suggestions and remedies abound. Because of the prevailing feeling against formal grammar, there has been an effort to camouflage the study. Various suggestions for avoiding the formal textbook instruction have been offered by authors and teachers. Stormzand and O'Shea state that formal grammar "is being dismembered as a body of scientific knowledge and offered to pupils piecemeal, with lack of agreement as to the relative importance or order of the various topics; and, more significantly still, it is being taught 'incidentally' as a minor phase of language study."[1]

Charles Swain Thomas says, "The current tendency of thinking educators is to advocate the teaching of a limited amount of formal grammar in some particular teaching situation. When teachers find that their students do not have the item of knowledge that would overcome a given difficulty, they should pause then and there to give them that knowledge."[2] Teachers complain that, if they tried to carry out that plan, it might require weeks of study and practice by the class and in some instances necessitate a pause so long as to make the "item of knowledge" the main subject instead of the subordinate subject. It is easy to pause and tell a class of high-school pupils that the subject and the verb should agree, but how hard it is to lead them really to understand and apply that rule! They must

[1] Martin J. Stormzand and M. V. O'Shea, *How Much English Grammar?* p. 13. Baltimore: Warwick & York, Inc., 1924.

[2] Charles Swain Thomas, *The Teaching of English in the Secondary School*, p. 39. Boston: Houghton Mifflin Co., 1917.

first know what a subject is—and any teacher of grammar can cite innumerable cases in which pupils have guessed every noun in the sentence as the subject; verbs are even harder for them to distinguish. They must be able to recognize verbs and must know which one belongs with the given subject; they must know one clause from another and be able to distinguish a sentence from a part of a sentence.

Another method of handling the subject of grammar was suggested: "Let the pupils make up a notebook of principles of grammar from the class study of themes rather than 'learn' the principles already collected in a textbook." It would be easy to find in the themes of the average class abundant reasons for the study of grammatical principles, but it is maintained that a convincing argument in favor of such procedure would be hard to present. The grammatical principles obtained from a canvass of the themes would not be new or original—the principles are as old as the language, and there are certain typical errors. According to English authorities, studying grammar from the hit-and-miss arrangement in a pupil's notebook is not an effective way to gain a working knowledge of a subject that needs a carefully graduated logical and psychological treatment. At best, the method would necessitate hours of labor on work that has already been done by experts. A pupil may arrange in a notebook the grammatical principles involved in some of his own errors or crudities and perhaps make up a plan for his own study to supplement the textbook, but he is hardly capable of making his own textbook.

Because the study of formal grammar proves difficult, some advocate omitting it from the elementary-school curriculum and introducing it in the secondary school. Others maintain that the subject is as easy for elementary-school pupils to understand as is mathematics or any other study in the curriculum that requires reasoning ability. They say that a pupil is as likely to make use of his knowledge of sentence structure as he is to use his knowledge of mathematics or geography; if he can prosper without an understanding of grammar, he can also prosper without a book knowledge of history and geography; if he can get all the grammar that he needs from his daily contacts, he can also get all the geography and history that

he needs in the same manner. Grammar has been the "goat" because it is more difficult to teach grammar successfully than it is to teach the other subjects in the course of study successfully.

"If formal grammar is as practical as are other subjects and as worthy of a place in the elementary-school curriculum, why has there been a general impression that it is not?" This question is asked by those who think that the subject should be reserved for study in advanced classes. "If it is no more difficult than are other 'lessons' that children in the elementary school are expected to prepare, why does grammar have the reputation of being too difficult for them?"

It is not always easy to see the practical results or the reaction obtained from a subject. If the study of the principles of grammar fails to function in the child's use of language in everyday life—ignoring the possibility that this study has proved impractical because it has not been practically taught—this is only one of innumerable parallel instances of the lack of application of classroom study. Charles Swain Thomas says that grammar "should be taught as a means toward an end"; that "the common terms have economic value"; that "to dispense with the aid that grammar offers would mean the loss of a valuable tool" in teaching literature.[1] Grammar "cannot in itself teach anyone to use the English language with unfaltering correctness; it can, however, be utilized as an effective agency (1) in perfecting oral and written speech and (2) in interpreting literature."[2]

Some educators believe that the place for the study of grammar is in the secondary school rather than in the elementary school, because it is a tool for "perfecting oral and written speech" and an aid in the interpretation of literature. If those who hold this belief will look through recent textbooks for children and books for teachers on the subject of English, they may find reasonable discussions favoring the study of sentence structure in the elementary school.[3]

Almost every recent textbook that includes formal grammar sets

[1] Charles Swain Thomas, *op. cit.*, pp. 43, 46. [2] *Ibid.*, p. 40.

[3] *Self-Help English Lessons*, Third Book (Yonkers-on-Hudson, New York: World Book Co., 1923, pp. 39, 239) by Julia Helen Wohlfarth and John J. Mahoney tells the children "Why You Are Studying Grammar" and "The Importance of Verb Study." *Sentence and Theme* (Chicago: Scott, Foresman & Co., 1923 [revised], p. 1) by C. H. Ward offers "Why We Study Grammar." *What Is English?* (Chicago: Scott, Foresman & Co., 1925 [revised], p. 120) by C. H. Ward discusses "Why Study Grammar?" and "What Grammar Is All About."

forth in its preface an argument favoring "grammar lessons restricted to simple forms and principles which function in forming correct habits of spoken and written expression." That the authors' aims are worthy is not disputed; the arguments for teaching only functional grammar are convincing; the brief treatments that the texts offer look adequate. The writer believes that many authors, in their attempts to simplify the subject of formal grammar, have succeeded in offering the pupil only admirable outlines and introductions. Instead of "bit by bit" doses gradually administered during several years, huge doses have been given to the pupils, and these potions they have been expected magically to assimilate. The result has been that the study has seemed difficult and consequently uninteresting. The old method confused the pupil with many details and technicalities; the newer way is often equally confusing because a brief acquaintance with a few facts does not give the pupil enough knowledge of these facts to enable him to make use of them. He has nothing lasting and carries with him as a result of his study only a hazy memory of grammatical terms.

Children do not learn to make practical use of arithmetic by memorizing an outline and a paragraph of explanation; neither do they learn grammar that serves any practical purpose by such procedure. They make use of their knowledge of arithmetic by solving problems, by multiplying and subtracting and dividing. In like manner, they should make use of their knowledge of grammatical principles by practice in applying these principles. Some argue, however, that a pupil is constantly applying his knowledge of sentence structure, since he is continually using language. True, but he is not *consciously applying his knowledge of a certain grammatical principle.* After a pupil has outlined and explained—perhaps memorized—a certain subject in grammar, he should make immediate conscious application of his newly acquired information and continue the practice until he thoroughly understands the principles involved. He needs *conscious* practice with illustrations—first, with illustrations that have been carefully prepared for him so that he will not be confused by a large number of complications and oddities and exceptions; later, with more complicated illustrations that he may select or originate. Charles Swain Thomas, in speaking of the

error of the unfinished sentence, says, "Knowledge of this grammatical distinction [between a sentence and a clause] may not alone correct the fault; this knowledge supplemented by adequate drill can correct the fault."[1]

English instructors agree that the sentence is the key to the English problem. Ward and Moffett say:

> Ever since English composition has been taught, teachers have known that the basic necessity is a knowledge of when one sentence ends and the next one begins—the "sentence sense." . . . . Must sentence sense be considered a mystical instinct, not to be acquired by average pupils through the means of specific practical work? The authors of this textbook believe that there is nothing mysterious about this knowledge, nor about the form of exercise that will convey it. If any normal child is shown how to find the units in an easy series of simple sentences, is required to separate another similar passage into units, is shown bit by bit how sentences begin, is led step by step through slightly harder sentences, is instructed point by point in the verbs and substantives and prepositions that make sentences, is carefully prepared for every advance in complexity by obvious and full illustrations, he will master a sentence sense.[2]

Many children whose education ends with the elementary school will have need in later years for some self-help method of improving and perfecting their speech and writing. A working knowledge of sentence structure will give them a tool that they can use for this purpose. It will lay a foundation for future study for those who go on through the high school and the college. If the study is graded to suit the age of elementary-school pupils, it will aid them in developing ability to use English more correctly and effectively. The child who hears good English spoken at home has an advantage. The pupil whose teachers speak good English has an advantage. The child who reads much good literature will use better English because of this reading. The pupil whose teachers employ, as a means of improving his speech, ear-training drills and abundant practice in careful oral and written composition will use better English because of this training. These advantages and this training are significant, but it is of fundamental importance that a pupil acquire a functional knowledge of grammar or sentence construction—the essential basis of all use of English.

[1] Charles Swain Thomas, *op. cit.*, p. 40.

[2] C. H. Ward and H. Y. Moffett, *Junior Highway to English*, p. 4. Chicago: Scott, Foresman & Co., 1922.

A SURVEY OF SPEECH DEFECTIVES IN THE PUBLIC ELEMENTARY SCHOOLS OF SOUTH DAKOTA

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While the field of defective speech has long held the attention of a few men with special interests, relatively little consideration has been given to this type of abnormality by the educational system. This is particularly true in our own country. In 1893 Hartwell secured a small amount of data with reference to stutterers in the public schools of Boston.[1] In 1911 Conradi investigated 87,440 school children in six American cities to secure information relative to the intellectual progress of stutterers.[2] A minor study made in 1913 of 3,010 pupils in ten graded elementary schools in New England was reported in 1914.[3] Two surveys were made in 1916. The first was a study of 89,057 pupils in the city schools of St. Louis by Wallin;[4] the second, a study of 4,862 pupils in the public and parochial schools of Madison, Wisconsin, by Smiley Blanton.[5]

Several studies of interest have been made outside the United States, the greatest attention, however, being given to the stutterers. Denhardt gathered data on 6,206 stutterers in Germany as early as 1890.[6] Von Sarbo secured data for 231,000 pupils in the cities and towns of Hungary in 1901.[7] Westergaard made a study of 34,000

[1] Edward Mussey Hartwell, "Application of Laws of Physical Training for the Prevention and Cure of Stuttering," *Proceedings of the International Congress of Education of the World's Columbian Exposition, Chicago, July 25–28, 1893, under the charge of the National Education Association of the United States*, pp. 739–49.

[2] Edward Conradi, "Speech Defects and Intellectual Progress," *Journal of Educational Psychology*, III (January, 1912), 35–38.

[3] A. Chester Tucker, "Impediments of Speech in Children—How to Overcome Them," *Education*, XXXIV (February, 1914), 354–60.

[4] J. E. W. Wallin, "A Census of Speech Defectives among 89,057 Public-School Pupils—A Preliminary Report," *School and Society*, III (February 5, 1916), 213–16.

[5] Smiley Blanton, "A Survey of Speech Defects," *Journal of Educational Psychology*, VII (December, 1916), 581–92.

[6] R. Denhardt, *Das Stottern*. Leipzig: E. Keil's Nachfolger, 1890.

[7] A. von Sarbo, "Statistik der an Sprachstörungen Leidenden Schulkinder Ungarns," *Medizinisch-pädagogische Monatsschrift für die gesamte Sprachheilkunde* (1901), pp. 65–89.

Danish school children in 1898,[1] and Lindberg made a study of 85,000 city children and 212,000 country children in Denmark in 1900.[2] Chervin endeavored to secure data concerning the extent of stuttering, particularly among the adult population and the soldiers in various nations.[3] Rouma made a study in 1906 of 14,235 Belgian children.[4] These studies constitute the major investigations in this field.

The survey here reported was an endeavor to discover whether the speech defective presents a problem to the elementary-school system. Two factors were considered of importance in the survey. If it were found that there is a high percentage of the school population afflicted with the major types of speech disorder, a distinct social problem would be established, since it is generally recognized that persons with speech disorders are handicapped socially. A fact of greater importance with reference to the elementary-school system is the matter of retardation. If the speech defectives generally were found to be retarded in school work, a distinct educational problem would be established.

A questionnaire study was made of 14,072 pupils in public elementary schools of South Dakota for the purpose of securing information along three lines: (1) The amount and extent of seven major types of speech disorder in the elementary-school population of South Dakota (*a*) in general and (*b*) according to specific defects. The seven major types of defects classified were stuttering, lisping and lalling, thick speech, nasality, indistinct speech, mutism, and agrammatism. (2) The distribution of the speech defects by sex or, in other words, a comparison of the extent of speech disorders among boys with the extent of speech disorders among girls. (3) The extent of school retardation, if any, among the speech defectives as a group and among the special classes or types.

[1] H. Westergaard, "Von der Häufigkeit der Sprachgebrechen," *Medizinisch-pädagogische Monatsschrift für die gesamte Sprachheilkunde* (1898), pp. 1–8.

[2] K. Lindberg, "Zur Häufigkeit des Stotterns bei Schulkindern," *Medizinisch-pädagogische Monatsschrift für die gesamte Sprachheilkunde* (1900), pp. 281–86.

[3] Arthur Chervin, *Bégaiements et autres maladies fonctionelles de la parole*, pp. 149–277. Paris: Société d'éditions scientifigues, 1902.

[4] George Rouma, "Enquete scolaire sur les troubles de la parole chez les écoliers belges," *Internationales Archiv für Schulhygiene*, II (1906), 151–90.

The following definitions of speech disorders were taken in part from those used by Blanton in his Madison survey.[1]

Stuttering and stammering.—The most obvious signs are continuous or interrupted spasms of the organs of respiration, phonation, or articulation.

Lisping and lalling.—Where the pupils give the wrong sound for *s*, *z*, *t*, *th*, *l*, and *r*. Foreign accent not included.

Thick speech.—Where children have poorly developed tongues, caused often by rickets or lack of thyroid secretion resulting in cretinism, or are unable to make the fine co-ordinations necessary for correct speech.

Agrammatism.—Where children persist in not speaking grammatically after, say, the age of four. This type may be able occasionally to repeat simple sentences. The form of this defect results in such an example as "Doll kiss sleep go."

Mutism.—A defect where the child, because of inhibitions or mental conflicts, refuses to speak with strangers or is unable to speak with them but is able to talk normally with certain persons, usually members of his own family.

THE INCIDENCE OF SPEECH DEFECTS

It was found that on the average 6.3 per cent of the pupils were afflicted with a speech disorder of one of the seven types. In other words, if the group of pupils studied is considered representative of all the elementary-school pupils of South Dakota, there were 8,600 speech defectives of these major types in the public elementary schools of the state. The lower grades showed the greatest extent of speech disorders (Table I).

There was also found a marked difference in the extent of defects according to types or classes, considering speech defectives as a group. It was found, contrary to popular belief, that by far the greatest percentage of speech defectives were lispers and lallers, this class comprising 2.6 per cent of the entire school population or 41.2 per cent of all speech defectives. Stutterers and stammerers as a group made up 1.2 per cent of the entire school population or 19.0 per cent of all speech defectives. Defectives with thick speech com-

[1] Smiley Blanton, *op. cit.*, pp. 581–82.

prised 0.8 per cent of the entire school population or 12.7 per cent of all defectives. Those with nasality, mutism, and indistinct speech amounted to approximately 0.4 per cent each or approximately 6.3

TABLE I

PERCENTAGE OF PUPILS WITH SPEECH DEFECTS IN EACH GRADE OF THE PUBLIC ELEMENTARY SCHOOLS OF SOUTH DAKOTA

Grade	Percentage of Pupils with Speech Defects
I	9.3
II	7.5
III	5.6
IV	6.4
V	6.0
VI	4.9
VII	4.1
VIII	4.0
Mean	6.3

TABLE II

PERCENTAGE OF PUPILS IN EACH GRADE OF THE PUBLIC ELEMENTARY SCHOOLS OF SOUTH DAKOTA AFFLICTED WITH LISPING OR LALLING AND STUTTERING OR STAMMERING

Grade	Percentage of Lispers and Lallers	Percentage of Stutterers and Stammerers
I	5.70	1.10
II	3.60	0.70
III	2.50	0.60
IV	1.04	1.80
V	2.70	2.10
VI	1.01	1.60
VII	0.60	1.30
VIII	1.00	0.60

per cent of the group of defectives. Those afflicted with agrammatism constituted an almost negligible number.

The relative extent of speech disorders does not remain uniform throughout the eight grades. There is, however, an almost steady decrease in the extent of speech defects up to the third grade. Between the third grade and the fourth grade there is a sudden rise;

there is then a gradual decrease to the eighth grade. The percentage of stuttering and stammering apparently increased considerably in Grade IV, continuing to Grade V, and then very gradually decreasing to Grade VIII (Table II). It is this sudden increase in stuttering that makes the total percentage of speech defectives high in Grade IV. An examination of the data for the boys and the girls in the stuttering group reveals the fact that the increase is greater for the boys than for the girls. The increase in amount extends from Grades III to V, whereas for the girls the high point is reached earlier—Grade IV. The curve for lispers and lallers shows an almost 60 per cent decrease in the extent of this disorder between Grades III and IV; between Grades I and IV there is a decrease of approximately 80 per cent.

DISTRIBUTION OF SPEECH DEFECTS BY SEX

The ratio of male speech defectives to female speech defectives is 1.5 to 1 (Table III). This ratio is not based on whole numbers

TABLE III

RATIO OF MALE SPEECH DEFECTIVES TO FEMALE SPEECH DEFECTIVES BY GRADES IN SOUTH DAKOTA

Grade	Ratio
I	1.8 to 1
II	1.3 to 1
III	1.0 to 1
IV	1.8 to 1
V	1.3 to 1
VI	2.4 to 1
VII	1.8 to 1
VIII	1.0 to 1
Mean	1.5 to 1

alone. It takes into consideration the ratio of all male pupils to all female pupils in the state. The latter ratio is approximately 1 to 1, there being 30,000 boys and 29,000 girls in the town and consolidated schools of the state.[1] The ratio between sexes in the matter of speech defects is not constant throughout the grades. The ratio is 1.8 to 1 in Grade I and decreases in Grades II and III; in the latter grade the ratio is 1 to 1. There is an increase in the case of the boys

[1] Statement of superintendent of public instruction, May 5, 1925.

in Grade IV, the ratio being 1.8 to 1, and a slight decrease in Grade V (ratio, 1.3 to 1), after which there is a very large increase in Grade VI (ratio, 2.4 to 1). From Grade VI to Grade VIII there is a marked decrease, the ratio in the latter grade being 1 to 1.

The fluctuation in ratios between male and female speech defectives as shown in Table III is the result of one or more possible factors. Some of these factors are that boys are more susceptible to speech disorders than are girls in those grades where the ratio of male defectives appears to be highest; that the percentage of all boys increases somewhat more than does the percentage of all girls

TABLE IV

PERCENTAGE OF PUPILS IN EACH GRADE OF THE PUBLIC ELEMENTARY SCHOOLS OF SOUTH DAKOTA WHO ARE MALE SPEECH DEFECTIVES AND PERCENTAGE WHO ARE FEMALE SPEECH DEFECTIVES

Grade	Percentage of Male Defectives	Percentage of Female Defectives	Percentage of Male and Female Defectives
I	5.8	3.5	9.3
II	4.2	3.3	7.5
III	2.9	2.7	5.6
IV	4.1	2.3	6.4
V	3.4	2.6	6.0
VI	3.4	1.5	4.9
VII	2.6	1.5	4.1
VIII	2.1	1.9	4.0
Mean	3.8	2.5	6.3

or that the percentage of all girls decreases in those grades where the ratio of male defectives appears highest; that female defectives improve more rapidly than do male defectives in those same grades; or, vice versa, that the percentage of female defectives increases more rapidly than does the percentage of male defectives where the ratio appears lowest.

Table IV compares by grades the percentage of pupils who are male speech defectives with those who are female speech defectives. The ratios between these percentages do not conform to the ratios just mentioned because they do not take into consideration the differences in the total number of boys and girls per grade as do the foregoing ratios.

Not only is there variation in the ratio between male and female speech defectives throughout the eight grades, but there is also variation in this same ratio among classes or types of defects, as shown in Table V. The ratio with reference to stammerers and stutterers is of particular importance, since the results of this study seem to corroborate the general opinion that more boys than girls stutter. The ratio in this survey is 2.2 to 1. Wallin's study of 89,057 public-school pupils in St. Louis shows a ratio of 2.8 to 1 in the stuttering group.[1] Hartwell's study of Boston school children in 1893 reveals the same ratio.[2] The ratio in Kenosha, Wisconsin, according to the statistics

TABLE V

RATIO OF MALES TO FEMALES ACCORDING TO TYPES OF SPEECH DEFECTS IN THE PUBLIC ELEMENTARY SCHOOLS OF SOUTH DAKOTA

Defect	Ratio
Indistinct speech	2.5 to 1
Stammering and stuttering	2.2 to 1
Thick speech	1.4 to 1
Mutism	1.3 to 1
Lisping and lalling	1.1 to 1
Nasality	1.1 to 1
Agrammatism	1.1 to 1
Mean	1.5 to 1

of the speech department for 1923–24, was 2.3 to 1.[3] Conradi reported a ratio of 2 to 1 in his study of children in six American cities.[4] In the matter of stuttering, the South Dakota survey seems to agree in general with the reports of other studies and statistics in this country.

SPEECH DEFECTS AND SCHOOL RETARDATION

There are two possible methods to employ in recording retardation. The one is that of computing the *overageness* of speech defectives as compared with the average of all pupils. This method merely indicates how much older the speech defective is than the average of

[1] J. E. W. Wallin, *op. cit.*, p. 214.

[2] Edward Mussey Hartwell, *op. cit.*, p. 746.

[3] *Report of the Public Schools of the City of Kenosha, Wisconsin* (April, 1925), p. 66.

[4] Edward Conradi, *op. cit.*, p. 37.

his grade; it does not give the actual school retardation or the inability of the speech defective to make normal school progress after entering school. The other method is that of computing *retardation in school progress*, which shows whether speech disorders handicap a pupil in making school progress. This latter method was followed by subtracting the average length of time it took all pupils to reach a particular grade after entering school from the length of time it took the speech defectives to reach the same grade. This could be done according to grade, type of defect, and sex. This method seems better suited to the purpose of this study since overageness does not

TABLE VI

NUMBER OF MONTHS SPEECH DEFECTIVES IN THE PUBLIC ELEMENTARY SCHOOLS OF SOUTH DAKOTA ARE OVERAGE

Grade	Male Speech Defectives	Female Speech Defectives	All Defectives*
I	4.2	2.5	3.6
II	7.1	4.9	6.0
III	9.1	8.2	8.7
IV	11.4	3.8	8.6
V	6.8	4.9	6.1
VI	12.5	2.2	9.2
VII	11.9	1.4	8.4
VIII	4.2	3.3	3.7
Mean	7.7	4.4	6.4

* Represents weighted mean.

show whether retardation was due to the fact that the pupil was handicapped by a speech defect or whether retardation was due to late entrance into school.

Retardation in educational attainment as measured by overageness.—The mean overageness of all speech defectives in the public elementary schools of South Dakota is 6.4 months (Table VI). In other words, speech defectives are, as a general rule, a half-year older than the average pupils of the same grade; conversely, pupils with speech disorders are, on the average, a half-grade behind the average pupils of the same age. Male speech defectives are more overage throughout the eight grades than are female speech defectives, although the ratio varies through the grades. The mean retardation

of the male speech defectives is 7.7 months as compared with 4.4 months for the female speech defectives. In other words, boys with speech disorders are a little more than three-fourths more overage than are girls afflicted with speech disorders.

Retardation as measured by actual school progress.—That there is a difference in the results for retardation is shown by Table VII. From the data, one would conclude that speech defectives as a group begin school at an earlier age than do other pupils, the difference between overageness and retardation in school progress giving the number of months earlier the speech defectives enter the first

TABLE VII

EXTENT OF RETARDATION PER GRADE OF ALL SPEECH DEFECTIVES ACCORDING TO (1) SCHOOL PROGRESS AND (2) AGE

Grade	Number of Months Retarded in School Progress	Number of Months Overage
I	.....	3.6
II	8.6	6.0
III	9.6	8.7
IV	11.2	8.6
V	8.6	6.1
VI	11.2	9.2
VII	10.1	8.4
VIII	10.7	3.7

grade. Retardation according to school progress is shown to be higher than retardation according to overageness. This difference points to two important facts. First, in actual rate of progress through the grades there is a marked difference between speech defectives and the average pupils of the same grade, a larger difference than can be shown by overageness. Second, retardation is, as a general rule, not the result of late entrance into school but rather the result of the inability of the speech defective to make normal school progress.

It is of further interest to note the relative retardation of various types of speech defectives (Table VIII). The mean retardation for the various types of speech defectives reveals the fact that pupils afflicted with indistinct speech are least able to make normal school progress, the other classes following in decreasing extent of retarda-

tion—thick speech, mutism, lisping and lalling, nasality, stuttering. Contrary to general opinion, stutterers as a group are better able to make progress in school work than are speech defectives of any other type. Lispers and lallers are relatively more retarded than are stutterers and have more difficulty in their school work. The extent of retardation is very marked in the case of defectives with thick speech and indistinct speech. It is impossible, however, to conclude from the data at hand whether defective mentality produced the retardation or whether the defect itself accounts largely for the retardation.

TABLE VIII

MEAN NUMBER OF MONTHS PUPILS WITH SIX TYPES OF SPEECH DEFECT IN THE PUBLIC ELEMENTARY SCHOOLS OF SOUTH DAKOTA ARE RETARDED IN SCHOOL PROGRESS

	Male Defectives	Female Defectives	All Defectives
Indistinct speech	23.01	14.86	20.65
Thick speech	15.22	17.82	16.29
Mutism	13.11	7.22	10.56
Lisping and lalling	11.56	8.68	10.22
Nasality	10.21	8.54	9.40
Stuttering and stammering	9.00	8.35	8.55
Mean	12.72	9.94	10.49

In every group, with the exception of those with thick speech, the boys are retarded more than are the girls and seem to be less able to make normal school progress than are the girls. It would seem, then, that boys are more affected by speech defects than are girls and cannot resist the inroads of the conditions producing these disorders.

GENERAL SUMMARY

1. There are, on the average, 6.3 per cent of the pupils in the public elementary schools of South Dakota afflicted with a major type of speech disorder: stuttering or stammering, lisping or lalling, mutism, nasality, indistinct speech, thick speech, or agrammatism.

2. In general, the extent of speech defects decreases as the grades advance, the percentages of all speech defectives for the grades from

the first to the eighth being 9.3, 7.5, 5.6, 6.4, 6.0, 4.9, 4.1, and 4.0, respectively.

3. Among elementary-school pupils there seems to be a greater percentage affected by lisping and lalling than by any other type of speech disorder, stuttering and stammering being second in extent. Almost one-half of all speech defectives are lispers or lallers.

4. The percentage of boys with speech defects is greater than the percentage of girls with speech defects, the ratio being 1.5 to 1. The ratio of male speech defectives to female speech defectives varies according to the general type of disorder. In the case of indistinct speech the ratio is 2.5 to 1; stuttering, 2.2 to 1; thick speech, 1.4 to 1; mutism, 1.3 to 1. All other defects show a general ratio of 1 to 1.

5. On the average, speech defectives are considerably overage when compared with average pupils of the same grade; in fact, speech defectives are generally six months behind average pupils of the same age.

6. As a general rule, speech defectives show a lack of ability in making normal school progress throughout the eight grades; speech defectives generally make less progress through school in a given length of time than do average pupils.

7. Boys with speech defects are more overage and retarded in actual school progress than are girls with speech defects.

8. The amount of retardation in actual school progress of all speech defectives shows a general increase from Grade I to Grade IV, after which there is a tendency toward uniformity.

9. The amount of retardation in school progress varies with the type of speech defect. As a general rule, stutterers and stammerers are better able to make normal progress in school work than are speech defectives of any other type. Defectives with indistinct speech are retarded the greatest amount; those with thick speech next; those with mutism, lisping and lalling, nasality, and stuttering following in order.

10. There is a problem of public-school education in South Dakota with reference to the 8,600 or more pupils in the public schools with major types of speech disorder, since these pupils are handicapped socially and educationally on the average of ten months so far as actual school progress is concerned.

RELATIVE INTELLIGENCE OF WHITE AND COLORED CHILDREN

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The purpose of the study reported in this article was, first, to determine the relative intelligence of the white and the colored children in the public schools of Oklahoma City as shown by the I.Q.'s of the two groups and, second, to check the validity of the theory that colored children are capable of doing good work in the lower grades but are much slower in mental development than are white children and are therefore unable to do as good work in the upper grades as in the lower grades.

The data were obtained from the regular testing program which is being carried on in the schools. During the past three years practically all the teachers in the kindergarten and in Grades I, II, and III and most of the principals in both the white and the colored schools have been induced to take a college course in Binet testing. Binet tests have been given by the teachers to all kindergarten and first-, second-, and third-grade children in the city. Both colored and white teachers had the same training for this testing under the same teacher, the writer. The testing was done under conditions as nearly uniform as possible. The work was carried on, however, under actual school conditions for the purpose of increasing our understanding of the children in the schoolroom and for the purpose of classification, etc., rather than for the purpose of an experimental study.

The Stanford Revision of the Binet-Simon Tests was given to 817 colored children and 5,159 white children in the kindergarten and Grades I, II, and III. The results of the Otis Self-Administering Test of Mental Ability reported in this study are from 411 colored children in Grades V to XII, inclusive; the results for the fourth grade were not available at the time of the compilation. The results from the Otis Self-Administering Test of Mental Ability for the

white children in the upper grades and the high school are not reported in this article. When administered in the upper grades of the

TABLE I

INTELLIGENCE QUOTIENTS OF COLORED CHILDREN BY GRADES

Grade	Number of Children	Average I.Q.*
Kindergarten	113	99
I	283	93
II	205	88
III	216	87
Total	817	91
V	55	75
VI	58	74
VII	54	85
VIII	87	84
IX	49	81
X	39	84
XI	41	85
XII	28	85
Total	411	82
Grand total	1,228	.....

* The kindergarten and the first-, second-, and third-grade I.Q.'s were secured through the use of the Stanford Revision of the Binet-Simon Tests; the upper-grade I.Q.'s, through the use of the Otis Self-Administering Test of Mental Ability.

TABLE II

INTELLIGENCE QUOTIENTS OF WHITE CHILDREN BY GRADES

Grade	Number of Children	Average I.Q.*
Kindergarten	212	103
I	1,830	104
II	1,579	104
III	1,538	102
Total	5,159	103

* The I.Q.'s were secured through the use of the Stanford Revision of the Binet-Simon Tests.

white schools in this city, this test has given an average I.Q. of approximately 100.

All the colored children in the schools of the city except those in the fourth grade and those from Grades V, VI, and VII in one school are included in this investigation. Although consistent efforts

are made to keep all children in school until they are sixteen or eighteen years of age, the number of pupils in the upper grades is not nearly as large as the number of pupils in the lower grades because of the very high percentage of retardation in the colored schools.

Table I shows the results of the intelligence tests in the colored schools; Table II, the results of the intelligence tests in the white schools.

TABLE III

DISTRIBUTION OF 817 COLORED CHILDREN ON THE BASIS OF THEIR AGES AND INTELLIGENCE QUOTIENTS

I.Q.	AGE							
	5 to 5-11	6 to 6-11	7 to 7-11	8 to 8-11	9 to 9-11	10 to 10-11	11 to 11-11	12 to 12-11
140 or more	0	0	0	0	1	0	0	0
130–139	1	1	0	0	0	0	0	0
120–129	2	4	2	1	2	3	0	0
110–119	21	22	18	4	3	4	0	0
100–109	27	38	44	34	16	10	1	0
90– 99	24	27	31	47	33	18	7	2
80– 89	7	23	26	30	45	28	18	9
70– 79	6	3	12	13	12	22	23	22
60– 69	1	2	1	3	3	11	13	24
50– 59	0	1	0	2	0	2	1	6
Total	89	121	134	134	115	98	63	63
First quartile	93	90	88	86	83	75	71	63
Median	102	101	99	94	89	85	78	71
Third quartile	112	109	107	102	98	96	86	78

In Tables III and IV the colored and the white children are distributed on the basis of their ages and intelligence quotients as determined by the Stanford Revision of the Binet-Simon Tests. It must be kept in mind that the data in these tables are not reliable for the children who are over nine years of age because of the fact that five, six, seven, and eight are the normal ages for the kindergarten and Grades I, II, and III, respectively. Therefore, the older groups become highly selected groups (retarded pupils) rather than unselected groups.

The intelligence quotients of the colored and the white children are shown in Table V.

TABLE IV*

DISTRIBUTION OF 4,874 WHITE CHILDREN ON THE BASIS OF THEIR AGES AND INTELLIGENCE QUOTIENTS

I.Q.	AGE							
	5 to 5-11	6 to 6-11	7 to 7-11	8 to 8-11	9 to 9-11	10 to 10-11	11 to 11-11	12 to 12-11
140 or more	2	15	10	10	1	0	0	0
130–139	14	51	43	21	3	0	2	0
120–129	30	173	160	102	11	3	1	0
110–119	39	340	302	171	51	6	0	0
100–109	50	451	409	413	159	11	5	1
90– 99	20	174	239	242	194	68	18	0
80– 89	9	87	77	138	116	71	23	7
70– 79	3	21	25	37	57	37	34	18
60– 69	3	9	7	11	7	5	17	21
59 or less	.....	3	1	6	1	2	2	4
Total	170	1,324	1,273	1,151	600	203	102	51
First quartile	102	101	99	94	87	81	72	65
Median	110	108	107	103	96	88	79	70
Third quartile	121	117	116	111	103	96	91	77

* Only 4,874 white children are represented in this table. In some cases the age of the child was not included in the teacher's report.

TABLE V

INTELLIGENCE QUOTIENTS OF COLORED AND WHITE CHILDREN BY GRADES

Grade	Colored Children	White Children*
Kindergarten	99	103
I	93	104
II	88	104
III	87	102
V	75	100
VI	74	100
VII	85	100
VIII	84	100
IX	81	100
X	84	100
XI	85	100
XII	85	100

* The I.Q.'s of the white children in Grades V–XII, inclusive, were not obtained from the data of the present study. The I.Q.'s for normal white children are included here for the purpose of making the comparison complete.

CONCLUSIONS

1. The colored children in the schools of Oklahoma City apparently have less of the abilities measured by the Binet and the Otis

tests than do the white children of the city or the white children throughout the country.

2. The average I.Q. of the colored children of the kindergarten and Grades I, II, and III as obtained by means of the Stanford Revision of the Binet-Simon Tests is 91.

3. The average I.Q. of the colored children of Grades V–XII, inclusive, as obtained by means of the Otis Self-Administering Test of Mental Ability is 82.

4. As shown by data from achievement tests (data not included in this article), the relation of the achievement of the colored children to the achievement of normal white children is about the same as the relation of the I.Q.'s of the colored children to the I.Q.'s of normal white children.

5. Standard tests show the colored children to be below normal in reading. This may account in part for the fact that the average I.Q. of the colored children obtained by means of the Otis Self-Administering Test of Mental Ability is lower than the average I.Q. obtained by means of the Binet test.

6. Although we cannot say from this data that the Otis and the Binet tests measure the same abilities, we can say that in those cases considered the colored children seem deficient in the abilities measured by each of the tests.

7. The theory that the mental growth of colored children is slower than the mental growth of white children is substantiated by the Binet test in the kindergarten and in Grades I, II, and III but is not in accord with the results from the Otis Self-Administering Test of Mental Ability in the upper grades. It must be remembered that as the higher grades are reached, the group becomes a highly selected group rather than an unselected group because of the high percentage of retardation in the colored schools.

Educational Writings

REVIEWS AND BOOK NOTES

Methods of teaching in the kindergarten and primary grades.—A significant problem ever before American educationists is that of securing better articulation between the various units of the school system. The effort to bridge the gap between the elementary school and the high school, resulting in the evolution of the junior high school, has met with notable success. The junior-college movement gives promise of closer co-ordination between the high school and the college.

At the other end of the educational ladder we find an arbitrary break, similar to the two mentioned, between the kindergarten and the first grade. No new institution is proposed to remedy this situation. Co-ordination here is to be based on a unified program of teaching which will do away with the break in curriculum and methods between the two units. Although the movement to unify was well started early in the century, no such progress has been made as in the case of the higher schools. The movement should receive vigorous impetus, however, from the recently published volume[1] written jointly by the late Professor S. Chester Parker and Alice Temple. This is a first book in the field and embodies the same remarkable insight into pedagogical theory which has characterized Professor Parker's writings in the past and an equally important contribution from Miss Temple based on many years of accumulated experience as director of unified kindergarten-primary departments.

With his customary expertness Professor Parker has supplied a great amount of historical data, provided a scientific basis for his theory, and applied his principles of method to the teaching of young children, all in brief space. Much of the theory so skilfully presented is the outgrowth of Miss Temple's research and experimental work. She has supplied also a fine practical discussion of classroom organization and management under the newer theory; numerous illustrations, descriptions, and interpretations of results achieved; descriptions of standards, materials, and equipment; and the like. Progressive kindergartners and primary teachers will welcome with delight the simple and concrete but none-the-less scientific presentation of methods of teaching young children to read; to express themselves through language, dramatization, drawing, and the

[1] Samuel Chester Parker and Alice Temple, *Unified Kindergarten and First-Grade Teaching*. Boston: Ginn & Co., 1925. Pp. xvi+600.

industrial arts; to solve problems; to form habits of enjoyment; etc. These same discussions may be something of a shock to mystics among the kindergartners and to the formalists among the primary teachers.

The shortcomings and the errors of the isolated kindergarten and of the old-fashioned first grade are clearly set forth. Full credit is given, however, to each school for its strong points, and these are used in constructing the unified program. The first grade contributes its emphasis on essential social skills, while the kindergarten furnishes an emphasis on the recreational and social possibilities which can be obtained because of children's playful imitation and expressive activities. Each of the two isolated units has badly needed the guidance obtainable from the other.

One of the most significant contributions made by the authors is in setting forth in clear, unequivocal manner the scientific basis for the theory of unified teaching. This may not appeal to some of the mystics who are to be found among both kindergartners and primary teachers and who would rather discuss the matter in the vague terminology of "spirit" and "symbolism." One hears much nonsense to the effect that scientific education is "unsympathetic" to the problems of the teacher of small children and that it will kill the "spirit" which exists in a well-ordered kindergarten or primary school. The fact is that a scientific basis is the only safe basis for any level of education. Scientific principles properly applied will not interfere in any way with the fine inspirational teaching which is essential in the lower grades. The authors are not unmindful of the importance of "spirit" and "atmosphere" in primary teaching and devote a chapter to the matter. The discussion, however, is keenly analytic, showing what the factors are which enter into and make possible a desirable spirit or atmosphere. There is a warning against those factors which interfere with the development of a fine classroom spirit.

Only the most conservative among either kindergartners or primary teachers will object to the scientific and sympathetic handling of the problems involved in unifying the two types of organization. As stated, the significant contribution of each has been recognized and skilfully utilized in constructing the unified program. The book is a valuable contribution to a critical problem and will doubtless play a major part in determining development in the immediate future.

WILLIAM H. BURTON

UNIVERSITY OF CINCINNATI

Two new book lists for children's reading.—The present trend in the teaching of reading in the intermediate and upper grades is toward wider and richer reading experiences for children. The practice of limiting a year's work in reading to the contents of a single textbook is rapidly passing. The problem which teachers now face is that of directing the reading interests of their pupils into a variety of worth-while fields. Since few teachers have been fortunate enough as children to experience this wider type of training in reading, most teachers are not suffi-

ciently familiar with child literature to direct wisely the reading of their pupils. Two books have recently appeared which have as their chief purpose the aiding of teachers and parents in selecting children's books. Each book furnishes a classified list of references for children's reading, but the methods of securing these reading lists differ in certain important respects.

The first[1] of these books was prepared by Professor Terman and Margaret Lima. The first ten chapters of the book, which cover ninety-one pages, present a discussion of the reading interests of children.

> This book is based on an experimental study of the qualitative and quantitative aspects of children's reading, with special reference to individual differences caused by age, sex, intelligence, and special interests. Approximately two thousand children were studied. Data were obtained from three sources, namely, the home, the school, and the children themselves. The results from all these sources were statistically treated, and, largely on the basis of the findings, which are reviewed in Part I of this book, an extensive list of books suitable for children was drawn up. This list, classified according to types, is given in Part II.
>
> Although in making out our list we have been greatly helped by the reading records which were kept by our children, data from this source have been by no means the sole factor in deciding what books should be included. We might almost say that our list is not so much a list of what children do read as it is a list of worth-while books that children would read if they were given the opportunity to do so [pp. vi–vii].

Before presenting the book list, the authors discuss such general questions of reading as children's reasons for reading, the amount of reading done by children, the development of reading interests, individual differences in reading, and the characteristics of desirable and undesirable books. The parts of this discussion which are based on the findings of the authors' objective study are interesting and profitable. In certain places in this discussion the lack of objective data is painfully evident. For example, one reads:

> Another item well worth considering in the selection of children's books is the length. Other things being equal, children prefer the book that may be read through in a comparatively short time. For the younger children, the lines should not be too close together or more than four inches in length. . . . . One reason why Mark Twain's *Roughing It* is not more popular is that it is just a bit too long [p. 89].

Just how long is "a comparatively short time" and just how far apart lines may be and still "not be too close together" are left to the reader's judgment. If the authors have specific evidence on these points, it should certainly be given, for publishers are badly in need of it.

The book list, which constitutes the principal contribution of the book, is suggestive and will be helpful to teachers. It is to be regretted that the basis for selecting the books in the list has not been more clearly explained. The extent to which the authors' personal judgments have offset the findings of their study of children's interests is not apparent from the discussion. The statement is

[1] Lewis M. Terman and Margaret Lima, *Children's Reading*. New York: D. Appleton & Co., 1925. Pp. xii+364. $2.00.

made that "in compiling our list weight has been given to the experience of others as well as to the results of our own study" (p. vii). The books in this list are thus placed in the same category with numerous others, namely, books which have been recommended by competent persons but which, after all, have been selected largely on the basis of personal judgment.

The second volume,[1] which likewise gives a carefully graded book list, was prepared by Superintendent Washburne and Mabel Vogel, who were assisted in their project by the Carnegie Corporation and the American Library Association. This publication resembles that of Terman and Lima in that it furnishes a comprehensive list of books classified by grades and by ages. It differs from the preceding volume in three respects: (1) It provides a very much more objective and scientifically determined list. (2) The reader is informed exactly how the list was prepared. (3) Each book reference is accompanied by very specific information as to its character, interest for children, etc.

The investigation on which the book list is based was carried out through the co-operation of 800 teachers and 36,750 children in thirty-four cities in various parts of the United States. Of the 8,500 books which were read by these children, the 700 which were reported by as many as twenty-five or more children are included in the reading list, with the exception of a small number of books which were considered "trashy" by thirteen competent librarians. The children participating were previously given the Stanford Silent Reading Test in order that their reading interests could be defined in terms of reading age rather than in terms of chronological age. Each child reported his interest in each book that he had read and its degree of difficulty and made a brief annotation giving his own comment on it.

The data which appear in the reading list are illustrated in the following quotation.

Black Beauty. Anna Sewell. Jacobs. $1.50. Dodge. $1.50.

Black Beauty tells us how his master treated him kindly and sold him. The first master never used a bit in his mouth because he wasn't used to it. The second master treated him roughly and gave him a bit to put in his mouth.

	No.	% Liking	Value	Age	Rdg. Grd.	4–5–6	50%	Cities	Index
Boys.....	266	95	79	11.2	5.7	64%	5–6	29	1,450
Girls.....	272	91	75	10.7	5.8	64%	5–6		

Title, author, publisher, and price are given first. Then comes a typical comment made by a child having reading ability within one grade of the grade under which the book is listed. For boys and girls separately are given the number who read the book, the percentage of these who liked it, the average interest value given to it by children within a grade of the median, the median age and the median reading grade of all children who read and liked the book, the percentage of children falling within one grade of the median, the grades at which the middle 50 per cent of children liking the book

[1] Carleton Washburne and Mabel Vogel, *Winnetka Graded Book List.* Chicago: American Library Association (86 East Randolph Street), 1926. Pp. 286.

fall, the number of cities in which the book was read, and an index of popularity which determined the arrangement of the books within the lists [p. 46].

The basis for the statistical information given concerning each reference is discussed fully in the first fifty-two pages of the book. In addition to the classified grade list, there is an age list, a list of publishers, and a subject index for all the books included.

These two books taken together make a real contribution to the literature of reading. The list published by Terman and Lima contains a greater variety of titles, is annotated by adults rather than by children, and will be valuable to anyone selecting supplementary books, particularly for exceptional children. The basis of the selection, however, is largely personal, and the list is lacking in quantitative scientific determination. The book prepared by Washburne and Vogel includes a smaller number of titles, selected entirely on the basis of children's interests. The book list was determined by scientific procedure, and it is supplemented by objective evidence indicating children's interest in the books, the extent to which children have read them, their difficulty for children, and their appropriate grade placement. As a book for teachers and schools, it possesses far greater value than does the other book. In the substitution of scientific evidence for personal opinion, the authors have contributed not only a worthwhile book list but also an example of scientific procedure which is worth careful study by students of education.

G. T. BUSWELL

New books on the teaching of science.—Among the recent books dealing with the teaching of science, that[1] by Brownell and Wade will best serve the new teacher. He will find it replete with helpful suggestions emanating from two experienced teachers, suggestions which, if heeded, will save him many blunders. The book will seem platitudinous to the mature teacher, though he will find in it some new ideas.

Part I considers laboratory work, notebooks, textbooks, class management, projects, examinations, study, and the science course. Part II deals with the science teacher, his preparation, his relation to the community, and his opportunities in character-building. Part III discusses the teaching of the several sciences, including nature study. The Appendix consists largely of model lessons.

The authors define laboratory work as a first-hand study of phenomena. Direct contact with phenomena is, however, supplied by demonstrations on the part of the teacher quite as much as by individual laboratory work on the part of the pupil. With such an extension of the usual use of the term, the claims made for the value of laboratory work must be allowed, but that "each laboratory exercise may be characterized as a problem" is the expression of an ideal rather than an actuality. Two hours daily is advocated for each science class. Why the science teacher should be so favored is not clear even though he does carry on his work through supervised study.

[1] Herbert Brownell and Frank B. Wade, *The Teaching of Science and the Science Teacher*. New York: Century Co., 1925. Pp. xii+322. $2.00.

In connection with the chapter on examinations and tests, the authors give a "range of information test." Since no norms are supplied, it is largely useless unless it is presented merely to suggest the type of material that is available in standardized form.

It is evidently impossible in brief compass to criticize all the weaknesses or to commend the many excellent points of the book. On the whole, the volume has an air of finality about it; one feels that all the problems of the teaching of science are settled. For the novitiate in teaching, such an air is perhaps best, temporarily. Fortunately, the dicta of the book are fairly well in accord with the results secured in the scientific study of the problems of science pedagogy.

A second book,[1] written by J. O. Frank, deals with the general-science course. This book discusses eighteen topics in as many chapters, all in 158 pages. The last chapter, thirty pages in length, is made up largely of the names and addresses of firms from which illustrative material can be obtained. The first chapter, "The History of Secondary Education in America," consists of four pages. Such a topic cannot be adequately treated in so brief a space. The book is sketchy throughout and gives the impression of having been hastily prepared. It reads more like a student's notes on university lecture courses than like a text resulting from careful and deliberate study of the subjects treated. Most of the material is excellent, however, even if it is incomplete. The topics discussed are modern and pertinent, and the literature is recent and well chosen. There are inaccuracies; for example, the name of one author is repeatedly misspelled, and the names of the authors and the publishers of six books are omitted from the library list.

A score card is presented for the evaluation of general-science texts, and the titles of fifty-two books are given in the chapter on "General Science Texts," but no evaluation is attempted. In the chapter on "The Laboratory" the author says that the pupils cannot learn the most from experiments in which they have no part, although he cites Cunningham's article which apparently demonstrates the contrary. If his citations to the literature were more complete, he would have a number of articles verifying Cunningham's conclusions. He says that the loose-leaf notebook which leaves a few spaces to be filled in by the pupil is not to be generally recommended. Stubbs's experimental study of this question reaches the opposite conclusion.

The book is stimulating and well worth reading. One cannot help wishing that the author had taken more time for the careful elaboration of his excellent material.

A third book,[2] prepared by Winslow and Williamson, deals with health education. Such a book has long been needed. No subject in the curriculum has

[1] J. O. Frank, *How to Teach General Science*. Oshkosh, Wisconsin: Castle-Pierce Press, 1925. Pp. xvi+194.

[2] Charles-Edward Amory Winslow and Pauline Brooks Williamson, *The Laws of Health and How to Teach Them*. New York: Charles E. Merrill Co., 1925. Pp. xiv+354. $1.60.

been taught as inefficiently as physiology and hygiene because the emphasis has been placed on the acquisition of knowledge rather than on the establishment of healthful habits of living. Here is a book for teachers that focuses attention on the really important thing. Part I discusses desirable health habits, presenting only such information about structures and physiological functions as is essential to intelligent understanding. Part II gives practical methods for translating these health practices into the activities of pupils.

The book will serve admirably teacher-training classes in health work, teachers' reading circles, and superintendents. Every teacher should be familiar with its contents in the interests of her own health and that of her pupils. Superintendents should insist that the health work of their schools be modernized in accordance with the standards which the book advocates.

The authors tell not only what ought to be done but also what is being done. No teacher can read the material presented without being impressed by the fact that the schools are improving the pupils' health. For instance, in Boston the defects of vision among the school children were reduced from 31.5 per cent in 1907 to 12.9 per cent in 1916; the defects of hearing were reduced from 8.1 per cent to 2.8 per cent during the same period.

E. R. DOWNING

Supervised study and scientific testing in American history.—A manual[1] of importance to teachers of American history in the upper elementary grades and the junior high school is intended to help such teachers conduct supervised study under classroom conditions and to show them how to develop a scheme of scientific testing. It is made up of five parts, there being no chapter divisions. Part I is devoted to the purposes of the manual and Part II in the main to supervised study. Part III discusses tests, and Part IV contains a series of tests based on *The History of the American People* by Beard and Bagley. Approximately one hundred of the 182 pages in the manual are included in Part IV. Part V contains a series of topics for topical recitations, likewise based on Beard and Bagley's text.

In his discussion of supervised study Mr. Stormzand includes such topics as the supervised-study method, significance of supervised study, an analysis of supervised study, essentials of supervised study, guiding pupils in their study, and studying under supervision. Topics closely related to supervised study and discussed in connection with it are supplementing the assignment, testing the pupils, variety in class work, subjects for topical recitations, suggestions for socialized recitations, and semester lesson-planning. While the treatment of each of these topics is brief, it is at the same time practical, being based on work done in the public schools of Los Angeles, California.

Most of the manual is devoted to testing and to illustrative tests. The material in the two parts devoted to this phase of the discussion is not mere theory.

[1] Martin James Stormzand, *American History Teaching and Testing*. New York: Macmillan Co., 1925. Pp. x+182.

The illustrative tests in Part IV have been used for several years in a number of classrooms in Los Angeles. Furthermore, experiments with the tests have been conducted by a number of teachers of history under the direction of the author.

By means of the tests presented in the manual, the author aims to furnish an aid to supervised study and a scientific substitute for the present "unsatisfactory, inaccurate, and wasteful method of the recitation and examination." Mr. Stormzand also feels that the tests will serve as models which a teacher can imitate and adapt to her own situation. While the tests are based on a particular textbook in history, the author feels that they can easily be adapted to other books and even to subjects other than history. Much good to the cause of worthwhile history-teaching is certain to result from the publication of the manual. It deserves the careful attention of all teachers of American history in the upper elementary grades and the junior high school.

R. M. TRYON

A useful manual for graduate students.—In most graduate schools the writing of a thesis is one of the requirements for a degree. Manuals to guide the student in this important phase of his work are, for the most part, brief and inadequate. Any attempt, therefore, to remedy the existing situation will find a hearty welcome among graduate students. A book[1] by Ward G. Reeder is one such attempt and a very praiseworthy one.

In the preparation of a thesis a student meets such problems as the selection, delineation, and planning of the topic for investigation; the working bibliography; the collection, organization, presentation, and interpretation of the material; the forms of citations and footnotes; the preparation of statistical tables and illustrations; and the final bibliography. All these problems and a few others are treated by Mr. Reeder in his manual. The suggestions given are practical, and, if followed, will result in a piece of work which has the characteristics that graduate schools are now demanding in the theses submitted.

Even if one does not agree with all that Mr. Reeder says in his treatment of the problems encountered in the writing of a thesis, one must admit that the suggestions given are well stated and very valuable. The models for footnote references are probably better than no models at all. They are at least consistent, a virtue that one should not overlook. It is the opinion of the reviewer that Mr. Reeder makes a mistake when he attempts a combination of the practices of two manuals in presenting models for footnote references. It would have been less confusing to the writer of a thesis if Mr. Reeder had used without modification the forms given in either the *Manual of Style* published by the University of Chicago Press or the *Catalogue Rules of the American Library Association.* These remarks also apply to the models for the final bibliography.

In spite of these seemingly adverse criticisms, the manual will be found ex-

[1] Ward G. Reeder, *How to Write a Thesis.* Bloomington, Illinois: Public School Publishing Co., 1925. Pp. 136.

tremely useful. A careful and thoughtful consideration of its contents is certain to result in a better piece of work and in a great saving of time.

R. M. TRYON

The technique of testing in geography.—A decade ago the writer in the field of educational measurements encountered little difficulty in covering within the limits of a single book all the material available on his subject. The past ten or fifteen years, however, have witnessed such increased interest and such productive labor in this field that one is not surprised by the appearance of books dealing with the technique of testing in but a single school subject.

An ambitious program for a small volume characterizes a book[1] by Mendel E. Branom. The reader finds in chapter i a discussion of the use and value of tests in geography; in chapter ii, criticism of the traditional "essay" type of test and support of the newer "objective" tests; in chapters iii and iv, a brief exposition of the author's procedure in deriving his geography tests; in chapters v–viii, inclusive, examples of the various forms of the newer tests together with their application to the measurement of achievement in place-geography, factual geography, and geography problems; in chapter ix, a classification of the details of geography; in chapter x, a comparison of the values of assisted and unassisted memory-recall tests; in chapters xi and xii, a critique of the standardized materials for geography-testing; and in chapter xiii; suggestions with regard to the interpretation of test results.

The book should therefore interest two classes of readers. Teachers and supervisors of geography will welcome the first two and the last nine chapters, in which the possibilities of the new-type tests are set forth and abundantly illustrated. On the basis of the principles laid down and the sample exercises provided, the classroom teacher should be able to devise her own "objective" tests, a practice which the author warmly indorses, in order to supplement the admitted values of the "essay" type of test. For this group of readers, the survey of standardized materials in the subject should also be of considerable value.

The second class of readers who will be interested in the book are students of the technique of testing. The author's analysis of four recent geography texts shows that they agree in stressing "(1) the location of places, (2) facts about places, (3) organized problems, and (4), to a minor extent, creative problems. All of these viewpoints should be held in mind in devising tests" (p. 46). Material to be included in tests covering any unit of subject matter from these four points of view is determined by the application of criteria of importance, such as population of countries and cities, capital cities, and significant physical features. The less important material, the details of geography, may be classified under thirty-three headings, and with this material the same testing technique may be employed as with the more fundamental subject matter.

The author has made little contribution to the theory of measurement. In

[1] Mendel E. Branom, *The Measurement of Achievement in Geography.* New York: Macmillan Co., 1925. Pp. xii+188.

general, it may be said that he has simply employed recognized criteria and conventional procedures. At one or two points the author's statements are open to question. For example, one may well doubt the validity of multiple-answer tests as entirely adequate measures of ability to deal with problems in geography. Again, one may challenge the author's conclusions regarding the comparative merits of two types of geography instruction as judged by test scores. On the other hand, there is much that is praiseworthy in the book. The author has shown great ingenuity in his application of the newer forms of testing to the content of geography. He has also taken a sane position in bespeaking care both in interpreting test scores as measures of achievement and in using test data for the guidance of subsequent instruction. The book is therefore valuable in a practical way rather than in a theoretical way and, as such, is recommended to the teacher of geography.

W. A. BROWNELL

A supplementary reader for first-grade pupils.—With the adoption of wider reading programs in the elementary school, there has developed a demand for a new and vital type of reading material. One means of supplying this demand is the use of readers that supplement the lessons of the basic series. Book One of a recently published series[1] was prepared with the following purposes in mind: "to avoid duplicating any of the material found in the basal and supplementary readers already on the market," "to use the experiences common to childhood," "to meet the needs for silent-reading material in beginning reading," "to have a simple plot and climax to each story," "to divide the stories into short units, each unit having a central thought," "to utilize the element of suspense in creating interest and holding attention," "to secure repetition of vocabulary, avoiding review pages that do not contribute any new thoughts," and "to use a vocabulary that is within Thorndike's first five hundred words" (p. 3).

The principles listed are generally accepted as valid and should be followed in organizing much of the supplementary reading material provided for children in the primary grades. The authors endeavor to appeal to the general interests of children through stories having such titles as the following: "Tom's Dog," "A Brownie's Trick," "A Jack-o'-Lantern," "The Proud Turkey," "Making a Store," and "A Visit to Santa Claus." Most of the stories are very cleverly written. There is no conclusive evidence, however, that stories based on the common experiences of life are more interesting and thrilling than are other types of stories frequently read by children. If the stories are to be read primarily to improve comprehension, they should doubtless relate to familiar experiences. If they are to be read by children in the primary grades to increase their interest in reading, other types of stories may have equal, if not greater, value. It remains to determine how successfully the stories included in this book appeal to the reading interests of first-grade pupils.

[1] Mary E. Pennell and Alice M. Cusack, *The Happy Children Readers*, Book One. Boston: Ginn & Co., 1925. Pp. 94.

Approximately one-third of the selections are entitled, "Something to Do," and contain directions for various activities, such as cutting, coloring, and drawing. A few selections take the form of riddles and require careful interpretation. It is evident from these facts that the book contains much material that can be used in cultivating habits of intelligent interpretation. In the judgment of the reviewer, the book is much more valuable for the purpose just mentioned than for use in promoting keen interest in reading.

WILLIAM S. GRAY

Types of pupils' work in history.—Good history teaching demands much pupil activity. In the past, this activity has been too largely confined to the reading of a textbook. Thanks to the energy and vision of a large number of wide-awake present-day history teachers, the mere rote learning of a textbook as the chief method of studying history is rapidly giving way to activities which conform to the sound principle of education that a child is educated only by his own mental responses. Examples of worth-while activities have appeared in a book[1] by a progressive history teacher in a modern school.

Mr. Knowlton's book is not a theoretical discussion of how to make history graphic; it is a collection of specimens of pupils' work in the history classes of the Lincoln School of Teachers College. Five types of work are represented in the specimens included in the book: (1) the cartoon or picture type, (2) the diagram, (3) the map, (4) written work, and (5) time lines, charts, and graphs. Each of these types is well represented in the collection of specimens. The subjects for the illustrations are drawn from both European history and American history. In American history there are illustrations of the see-saw of American politics, comparison of the North and the South at the beginning of the Civil War, the War of 1812 and its effects, the American mode of living, the compromise of 1850, the Constitution of the United States, and other topics of a similar nature.

The sort of work represented in this book is more or less common in various sections of the country. Recently the reviewer observed superior work of this nature in Evansville, Indiana, and in Racine, Wisconsin. It is to be hoped that Mr. Knowlton's publication of a few specimens from his history classes may encourage others to publish similar material. History teachers will find the book of interest both to themselves and to their pupils.

R. M. TRYON

Popular talks on problems of education.—A series of common-sense talks on problems of the home and the school is contained in a book[2] by Angelo Patri. The talks are presented in popular style and will appeal to parents fully as much

[1] Daniel C. Knowlton, *Making History Graphic: Types of Students' Work in History.* New York: Charles Scribner's Sons, 1925. Pp. xii+154.

[2] Angelo Patri, *School and Home.* New York: D. Appleton & Co., 1925. Pp. 222. $1.50.

as to teachers. Their significance lies largely in the fact that they are given by one who possesses a keen insight into child nature and who has the ability to make a human-interest appeal of an uncommon type when dealing with problems of education. The book contains eleven chapters, which are related chiefly to problems of child-training. The book is full of concrete illustrations and case descriptions, which furnish the factual basis for the author's argument. The following chapter titles indicate the content of the book: "The Gifted Child," "No Child Is Really Bad," "The Child Who Fails," "Fear and the Child," "Parents' Associations," and "The Old School and the New." The book is interesting and will be stimulating to most teachers.

G. T. BUSWELL

Action songs for elementary-school children.—A manual for recreational activities[1] prepared by Chester G. Marsh is of special interest to teachers in rural and village schools where there is no graded system of physical education. The main part of the book is made up of singing games, action stories, and running games. For each of these, there is given, first, the music and the words for the song which accompanies the game or story and, second, detailed directions for playing the game or for acting out the story. In addition to this section on games and stories, the book contains directions for a Maypole exercise, a set of drills for the grammar grades, a posture test, and a rather elaborate exhibition drill. The book contains activities for both indoors and outdoors. The games and activities have been so selected that they can be used for children of various ages, either separately or grouped together.

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY, AND PRACTICE

ALMACK, JOHN C., and BURSCH, JAMES F. *The Administration of Consolidated and Village Schools.* Boston: Houghton Mifflin Co., 1925. Pp. xvi+466. $2.40.

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